

STRUCTURE SEARCH

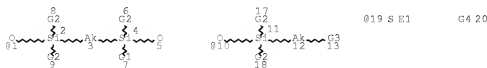
=> d his 147

(FILE 'HCAPLUS' ENTERED AT 17:56:40 ON 23 FEB 2010)

L47 23 S L40 OR L44 OR L46
SAV TEMP L47 ECH222HCP/A

=> d que stat 147

L1 1 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON US20060219981/
PN
L2 7 SEA FILE=REGISTRY SPE=ON ABB=ON PLU=ON (154619-15-5/
BI OR 161000-64-2/BI OR 273735-07-2/BI OR 770733-64-7/B
I OR 792931-71-6/BI OR 792931-72-7/BI OR 792931-73-8/BI
)
L3 STR



VAR G1=ME/ET/H-PR/I-PR/PH
VAR G2=ME/ET/H-PR/I-PR/PH/O
VAR G3=CO2H/OPO3H2/OSO3H/PO3H2/19/SO3H
VAR G4=1/10

NODE ATTRIBUTES:

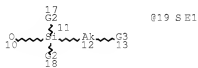
HCOUNT IS E1 AT 19
CONNECT IS E1 RC AT 19
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED
ECOUNT IS M1-X50 C AT 3
ECOUNT IS M1-X50 C AT 12

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 17

STEREO ATTRIBUTES: NONE

L7 4613 SEA FILE=REGISTRY SSS FUL L3
L8 STR



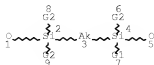
VAR G2=ME/ET/H-PR/I-PR/PH/O
VAR G3=CO2H/OPO3H2/OSO3H/PO3H2/19/SO3H
NODE ATTRIBUTES:
HCOUNT IS E1 AT 19
CONNECT IS E1 RC AT 19
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED
ECOUNT IS M1-X50 C AT 12

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 7

STEREO ATTRIBUTES: NONE

L9 STR



VAR G1=ME/ET/N-PR/I-PR/PH
 VAR G2=ME/ET/N-PR/I-PR/PH/O
 NODE ATTRIBUTES:
 DEFAULT MLEVEL IS ATOM
 DEFAULT ELEVEL IS LIMITED
 ECOUNT IS M1-X50 C AT 3

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 9

STEREO ATTRIBUTES: NONE

L11 2898 SEA FILE=REGISTRY SUB=L7 SSS FUL L8
 L13 1738 SEA FILE=REGISTRY SUB=L7 SSS FUL L9
 L14 23 SEA FILE=REGISTRY SPE=ON ABB=ON PLU=ON L11 AND L13
 L15 2 SEA FILE=REGISTRY SPE=ON ABB=ON PLU=ON L2 AND L14
 L17 16 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L14
 L18 1 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L15
 L19 7604 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L11
 L20 1182 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L13
 L21 50 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L19 AND L20
 L22 4844 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON PROTON?(8A)?CO
 NDUCT?(8A)?MEMBRAN?
 L23 50 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L17 OR L21
 L24 50 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L23 OR L18
 L25 QUE SPE=ON ABB=ON PLU=ON PY=<2003 NOT P/DT
 L26 QUE SPE=ON ABB=ON PLU=ON (PY=<2003 OR PRY=<2003 OR
 AY=<2003 OR MY=<2003 OR REVIEW/DT) AND P/DT
 L27 32 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L24 AND (L25
 OR L26)
 L28 10 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L17 AND L27
 L29 32 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L27 OR L28
 L30 1 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L29 AND L22
 L31 1 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L1 AND L29
 L32 15922 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON PROTON?(3A)?CO
 NDUCT?
 L33 2 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L29 AND L32
 L34 QUE SPE=ON ABB=ON PLU=ON FILM? OR THINFILM? OR LAYE
 R? OR OVERLAY? OR OVERLAID? OR LAMIN? OR LAMEL? OR MULT
 ILAYER? OR SHEET? OR LEAF? OR FOIL? OR COAT? OR TOPCOAT
 ? OR OVERCOAT? OR VENEER? OR SHEATH? OR COVER? OR ENVEL
 OP? OR ENCASE? OR ENWRAP? OR OVERSPREAD? OR ENCAPSUL?
 L35 QUE SPE=ON ABB=ON PLU=ON L34 OR ?MEMBRAN?
 L36 QUE SPE=ON ABB=ON PLU=ON (PROTON? OR CHARG? OR HOLE
 # OR ELECTRON# OR E) (2A) (TRANSPORT? OR MIGRAT? OR TRAN
 SFER? OR MOVE# OR MOVING# OR MOVEMENT? OR ?CONDUCT?)
 L37 15 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L29 AND (L36
 OR L22 OR L32 OR L35)
 L38 QUE SPE=ON ABB=ON PLU=ON POR? OR POUR?
 L39 3 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L37 AND L38
 L40 15 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON (L30 OR L31)
 OR L33 OR L37 OR L39
 L43 QUE SPE=ON ABB=ON PLU=ON POLYMI? OR CURE# OR CURING
 # OR CURAB? OR CROSS(W)LINK? OR CROSSLINK?

10/554,222-322849-EIC SEARCH

L44	18	SEA	FILE=HCAPLUS	SPE=ON	ABB=ON	PLU=ON	L29 AND L43
L46	10	SEA	FILE=HCAPLUS	SPE=ON	ABB=ON	PLU=ON	L44 AND L40
L47	23	SEA	FILE=HCAPLUS	SPE=ON	ABB=ON	PLU=ON	L40 OR L44 OR
							L46

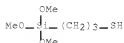
STRUCTURE SEARCH RESULTS

=> d 147 1-23 ibib ed abs hitstr hitind

L47 ANSWER 1 OF 23 HCAPLUS COPYRIGHT 2010 ACS on STN
 ACCESSION NUMBER: 2005:75850 HCAPLUS Full-text
 DOCUMENT NUMBER: 142:159545
 TITLE: Manufacture of electrodes for fuel cells with high catalytic efficiency, and good durability and dimensional stability
 INVENTOR(S): Miyama, Toshihito; Nomura, Shigeki
 PATENT ASSIGNEE(S): Sekisui Chemical Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 31 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005026005	A	20050127	JP 2003-188386	2003 0630
JP 4394906	B2	20100106	JP 2003-188386	2003 0630

ED Entered STN: 28 Jan 2005
 AB The electrodes consist of electroconductive porous materials, crosslinked structures having acid group-containing metal-O linkages in contact with the porous materials, and metal particles precipitated near the acid groups. The electrodes are manufactured by mixing the electroconductive porous materials with the crosslinked structures, substitution of proton in the acid groups with cations containing metal catalyst ions, and reducing the metal ions for precipitation of metal particles in the crosslinked structures. The electrodes show improved heat resistance.
 IT 161000-64-2DP, oxidized
 RL: CPS (Chemical process); DEV (Device component use); IMF (Industrial manufacture); PEP (Physical, engineering or chemical process); PREP (Preparation); PROC (Process); USES (Uses)
 (manufacture of electrodes by precipitation of metal particles for fuel cells)
 RN 161000-64-2 HCAPLUS
 CN Silicic acid (H4SiO4), tetraethyl ester, polymer with 3-(trimethoxysilyl)-1-propanethiol (CA INDEX NAME)
 CM 1
 CRN 4420-74-0
 CMF C6 H16 O3 S Si



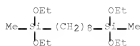
CM 2

CRN 78-10-4

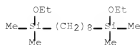
CMF C8 H20 O4 S1



IT 469867-63-8P, 1,8-Bis(diethoxymethylsilyl)octane
 524729-76-8P
 RL: IMF (Industrial manufacture); RCT (Reactant); PREP
 (Preparation); RACT (Reactant or reagent)
 (manufacture of electrodes by precipitation of metal particles for fuel
 cells)
 RN 469867-63-8 HCAPLUS
 CN 3,14-Dioxa-4,13-disilahehexadecane, 4,13-diethoxy-4,13-dimethyl-
 (CA INDEX NAME)



RN 524729-76-8 HCAPLUS
 CN 3,14-Dioxa-4,13-disilahehexadecane, 4,4,13,13-tetramethyl- (CA
 INDEX NAME)

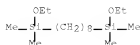


IT 770733-64-7P
 RL: DEV (Device component use); IMF (Industrial manufacture); PREP
 (Preparation); USES (Uses)
 (water-repellent treatment for electroconductive porous
 materials; manufacture of electrodes by precipitation of metal particles for
 fuel cells)
 RN 770733-64-7 HCAPLUS
 CN 3,14-Dioxa-4,13-disilahehexadecane, 4,13-diethoxy-4,13-dimethyl-,
 polymer with 4,4,13,13-tetramethyl-3,14-dioxa-4,13-
 disilahehexadecane (9CI) (CA INDEX NAME)

CM 1

CRN 524729-76-8

CMF C16 H38 O2 S12



CM 2

CRM 469867-63-8

CMF C18 H42 O4 Si2



IC ICM H01M004-86
ICS H01M004-88; H01M008-10
CC 52-2 (Electrochemical, Radiational, and Thermal Energy Technology)
Section cross-reference(s): 38
IT 161000-64-2DP, oxidized
RL: CPS (Chemical process); DEV (Device component use); IMF (Industrial manufacture); PEP (Physical, engineering or chemical process); PREP (Preparation); PROC (Process); USES (Uses) (manufacture of electrodes by precipitation of metal particles for fuel cells)
IT 469867-63-8P, 1,8-Bis(diethoxymethylsilyl)octane
524729-76-8P
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent) (manufacture of electrodes by precipitation of metal particles for fuel cells)
IT 770733-64-7P
RL: DEV (Device component use); IMF (Industrial manufacture); PREP (Preparation); USES (Uses) (water-repellent treatment for electroconductive porous materials; manufacture of electrodes by precipitation of metal particles for fuel cells)

L47 ANSWER 2 OF 23 HCAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 2004:1056991 HCAPLUS Full-text
DOCUMENT NUMBER: 142:24750
TITLE: Curable vinyl polymer compositions with good weather and heat resistance
INVENTOR(S): Hasegawa, Nobuhiro; Nakagawa, Yoshiki
PATENT ASSIGNEE(S): Kaneka Corp., Japan
SOURCE: Jpn. Kokai Tokyo Koho, 69 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004346146	A	20041209	JP 2003-143182	2003 0521
			<--	
PRIORITY APPLN. INFO.:			JP 2003-143182	2003 0521
			<--	

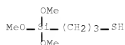
ED Entered STN: 09 Dec 2004

AB The compns., useful for sealants, adhesives, etc., contain vinyl polymers having ≥ 1 crosslinkable silyl group. Thus, a composition comprising silyl-terminated polymer [manufactured from alkenyl-terminated poly(Bu acrylate) and (MeO)2SiHMe] 100, Hakuenka CCR (colloidal CaCO₃) 150, Nanox 25A (ground CaCO₃) 40, Tipaque R 820 (TiO₂) 10,

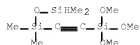
10/554,222-322849-EIC SEARCH

plasticizer 70, thixotropic agent 2, antiaging agents 2, hardener 2, and other additives 5 parts was applied on a substrate and cured and aged at room temperature for 3 days and at 50° for 4 days to give a rubber sheet with excellent weather resistance.

- IT 4420-74-GDP, 3-Mercaptopropyltrimethoxysilane, reaction products with alkenyl-terminated poly(Bu acrylate)
656247-27-TDP, reaction products with alkenyl-terminated poly(Bu acrylate)
RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(vulcanized rubber; curable silyl group-containing vinyl polymer compns. with good weather and heat resistance)
- RN 4420-74-0 HCAPLUS
- CN 1-Propanethiol, 3-(trimethoxysilyl)- (CA INDEX NAME)



- RN 656247-27-7 HCAPLUS
- CN 3,8-Dioxa-2,4,7-trisilanon-5-yne, 7,7-dimethoxy-2,4,4-trimethyl- (CA INDEX NAME)



- IC ICM C08F008-42
ICS C08F004-40; C08F008-26; C08F008-34
- CC 42-11 (Coatings, Inks, and Related Products)
Section cross-reference(s): 38, 39
- ST vinyl polymer silyl crosslinkable weather resistance;
rubber sheet polybutyl acrylate methoxysilyl terminated;
heat resistance sealant adhesive rubber silyl
- IT Silicone rubber, uses
RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(acrylic-; curable silyl group-containing vinyl polymer compns. with good weather and heat resistance)
- IT Polysiloxanes, uses
RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(acrylic-polyoxyalkylene-, rubber; curable silyl group-containing vinyl polymer compns. with good weather and heat resistance)
- IT Silicone rubber, uses
RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(acrylic-polyoxyalkylene-; curable silyl group-containing vinyl polymer compns. with good weather and heat resistance)
- IT Synthetic rubber, uses
RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(acrylic-polyoxyalkylene-siloxane; curable silyl

10/554,222-322849-EIC SEARCH

- group-containing vinyl polymer compns. with good weather and heat resistance)
- IT Polyoxyalkylenes, uses
 RL: IMF (Industrial manufacture); POF (Polymer in formulation);
 TEM (Technical or engineered material use); PREP (Preparation);
 USES (Uses)
 (acrylic-polysiloxane-, rubber; curable silyl
 group-containing vinyl polymer compns. with good weather and heat
 resistance)
- IT Polyoxyalkylenes, uses
 RL: IMF (Industrial manufacture); POF (Polymer in formulation);
 TEM (Technical or engineered material use); PREP (Preparation);
 USES (Uses)
 (curable silyl group-containing vinyl polymer compns.
 with good weather and heat resistance)
- IT Adhesives
 (heat-resistant; curable silyl group-containing vinyl
 polymer compns. with good weather and heat resistance)
- IT Acrylic rubber
 RL: IMF (Industrial manufacture); POF (Polymer in formulation);
 TEM (Technical or engineered material use); PREP (Preparation);
 USES (Uses)
 (polyoxyalkylene-siloxane; curable silyl group-containing
 vinyl polymer compns. with good weather and heat resistance)
- IT Acrylic rubber
 RL: IMF (Industrial manufacture); POF (Polymer in formulation);
 TEM (Technical or engineered material use); PREP (Preparation);
 USES (Uses)
 (siloxane-; curable silyl group-containing vinyl polymer
 compns. with good weather and heat resistance)
- IT Sealing compositions
 (weather-resistant; curable silyl group-containing vinyl
 polymer compns. with good weather and heat resistance)
- IT 375345-55-4P, Butyl acrylate-methoxydiisopropylene glycol acrylate
 copolymer
 RL: IMF (Industrial manufacture); MOA (Modifier or additive use);
 TEM (Technical or engineered material use); PREP (Preparation);
 USES (Uses)
 (compatibilizer; curable silyl group-containing vinyl
 polymer compns. with good weather and heat resistance)
- IT 2487-90-3DP, Trimethoxysilane, reaction products with
 alkenyl-terminated poly(Bu acrylate) 3710-30-3DP, 1,7-Octadiene,
 reaction products with poly(Bu acrylate) and alkoxyhydrosilanes
 4420-74-ODP, 3-Mercaptopropyltrimethoxysilane, reaction
 products with alkenyl-terminated poly(Bu acrylate) 6159-41-7DP,
 reaction products with poly(Bu acrylate) and alkoxyhydrosilanes
 9003-49-ODP, Poly(butyl acrylate), alkoxy-silyl-terminated
 9042-19-7DP, Polypropylene glycol allyl ether, reaction products
 with methyldimethoxysilane 16881-77-9DP, Dimethoxymethylsilane,
 reaction products with alkenyl-terminated poly(Bu acrylate)
 21748-45-8DP, reaction products with poly(Bu acrylate) and
 alkoxyhydrosilanes 25322-69-4DP, Polypropylene glycol, polyol
 derivs., alkoxy-silyl-terminated 25852-39-5DP, Butyl
 acrylate-methyl acrylate copolymer, alkoxy-silyl-terminated
 26353-42-4DP, Butyl acrylate-ethyl acrylate copolymer,
 alkoxy-silyl-terminated 36632-32-3DP, Butyl acrylate-stearyl
 acrylate copolymer, alkoxy-silyl-terminated 93410-24-3DP, Butyl
 acrylate-ethyl acrylate-2-methoxyethyl acrylate copolymer,
 alkoxy-silyl-terminated 110689-53-7P, Butyl
 acrylate-methyldimethoxysilylpropyl methacrylate-methyl
 methacrylate copolymer 115775-33-2P 149360-92-9DP, reaction
 products with methyldimethoxysilane 646522-54-5P
 656247-27-7DP, reaction products with alkenyl-terminated
 poly(Bu acrylate) 740872-79-1DP, alkoxy-silyl-terminated
 800387-54-6P 800399-69-3P 800399-71-7DP, reaction products
 with methyldimethoxysilane
 RL: IMF (Industrial manufacture); POF (Polymer in formulation);

10/554,222-322849-EIC SEARCH

TEM (Technical or engineered material use); PREP (Preparation);
 USES (Uses)
 (vulcanized rubber; curable silyl group-containing vinyl
 polymer compns. with good weather and heat resistance)

L47 ANSWER 3 OF 23 HCAPLUS COPYRIGHT 2010 ACS on STN
 ACCESSION NUMBER: 2004:965518 HCAPLUS Full-text
 DOCUMENT NUMBER: 141:413617
 TITLE: Proton conductive
 film, its manufacture, and fuel cell
 using the film
 INVENTOR(S): Miyama, Toshihito; Sugimoto, Toshiya; Nomura,
 Shigeki
 PATENT ASSIGNEE(S): Sekisui Chemical Co., Ltd., Japan
 SOURCE: PCT Int. Appl., 82 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004097850	A1	20041111	WO 2004-JP5885	2004 0423

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W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ,
 CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG,
 ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP,
 KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,
 MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL,
 PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR,
 TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
 RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW,
 AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY,
 CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC,
 NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM,
 GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

CA 2520827	A1	20041111	CA 2004-2520827	2004 0423
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EP 1619692	A1	20060125	EP 2004-729222	2004 0423
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R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE,
 MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ,
 EE, HU, PL, SK, HR

TW 251368	B	20060311	TW 2004-93111399	2004 0423
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CN 1781162	A	20060531	CN 2004-80011145	2004 0423
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CN 100416708	C	20080903		
US 20060219981	A1	20061005	US 2005-554222	2005 1024

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PRIORITY APPLN. INFO.:	JP 2003-122766	A	2003 0425
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10/554,222-322849-EIC SEARCH

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 JP 2004-9471 A 2004
 0116
 WO 2004-JP5885 W 2004
 0423

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

ED Entered STN: 12 Nov 2004

AB A proton-conductive film which is excellent in heat resistance, durability, dimensional stability, fuel-barrier properties, flexibility, etc. and has excellent proton conductivity even at high temps.; a process for producing the film; and a fuel cell which can stably work at high temps. The proton-conductive film comprises; base comprising an organic/inorg.composite structure (α) which has a crosslinked structure formed through metal oxygen bonds and has an interconnecting pore structure in which press formed inside by the crosslinked structure are interconnected; and a proton-conductive structure (β) comprising an acid-containing structure having an acid group, the pores of the base being filled with the structure (β). A fuel cell with excellent performances can be obtained by suing the proton-conductive film.

IT 154619-15-5P 161000-64-2P
 273735-07-2P 770733-64-7P
 792931-71-6P 792931-72-7P
 792931-73-8P

RL: DEV (Device component use); IMF (Industrial manufacture); PREP
 (Preparation); USES (Uses)
 (composite proton conductive inorg.-organic
 films for fuel cells)

RN 154619-15-5 HCAPLUS

CN 1-Propanesulfonic acid, 3-(trihydroxysilyl)-, polymer with silicic
 acid (H4SiO4) tetraethyl ester (CA INDEX NAME)

CM 1

CRN 70942-24-4

CMF C3 H10 O6 S Si



CM 2

CRN 78-10-4

CMF C8 H20 O4 Si



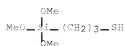
RN 161000-64-2 HCAPLUS

CN Silicic acid (H4SiO4), tetraethyl ester, polymer with
 3-(trimethoxysilyl)-1-propanethiol (CA INDEX NAME)

CM 1

10/554,222-322849-EIC SEARCH

CRN 4420-74-0
CMF C6 H16 O3 S Si



CM 2

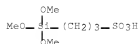
CRN 78-10-4
CMF C8 H20 O4 Si



RN 273735-07-2 HCAPLUS
CN 1-Propanesulfonic acid, 3-(trimethoxysilyl)-, polymer with silicic acid (H4SiO4) tetraethyl ester (9CI) (CA INDEX NAME)

CM 1

CRN 79059-66-8
CMF C6 H16 O6 S Si



CM 2

CRN 78-10-4
CMF C8 H20 O4 Si



RN 770733-64-7 HCAPLUS
CN 3,14-Dioxa-4,13-disilahehexadecane, 4,13-diethoxy-4,13-dimethyl-, polymer with 4,4,13,13-tetramethyl-3,14-dioxa-4,13-disilahehexadecane (9CI) (CA INDEX NAME)

CM 1

CRN 524729-76-8

10/554,222-322849-EIC SEARCH

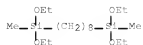
CMF C16 H38 O2 Si2



CM 2

CRN 469867-63-8

CMF C18 H42 O4 Si2



RN 792931-71-6 HCAPLUS

CN 1-Propanesulfonic acid, 3-(trihydroxysilyl)-, polymer with
4,4,13,13-tetramethyl-3,14-dioxo-4,13-disilahehexadecane (9CI) (CA
INDEX NAME)

CM 1

CRN 524729-76-8

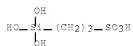
CMF C16 H38 O2 Si2



CM 2

CRN 70942-24-4

CMF C3 H10 O6 S Si



RN 792931-72-7 HCAPLUS

CN 1-Propanethiol, 3-(trimethoxysilyl)-, polymer with
4,4,13,13-tetramethyl-3,14-dioxo-4,13-disilahehexadecane (9CI) (CA
INDEX NAME)

CM 1

CRN 524729-76-8

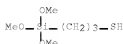
CMF C16 H38 O2 Si2



CM 2

CRN 4420-74-0

CMF C6 H16 O3 S S1



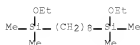
RN 792931-73-8 HCAPLUS

CN 3,14-Dioxo-4,13-disilahehexadecane, 4,4,13,13-tetraethoxy-, polymer
with 4,4,13,13-tetramethyl-3,14-dioxo-4,13-disilahehexadecane (9CI)
(CA INDEX NAME)

CM 1

CRN 524729-76-8

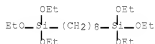
CMF C16 H38 O2 S12



CM 2

CRN 52217-60-4

CMF C20 H46 O6 S12



IC ICM H01B001-06

ICS H01M008-02; H01M008-10

CC 52-2 (Electrochemical, Radiational, and Thermal Energy Technology)
Section cross-reference(s): 38

ST fuel cell proton conductive bridged inorg org
film manuf; silicon bridged org proton
conductive film fuel cell

IT Fuel cells
(PEFC; composite proton conductive
inorg.-organic films for fuel cells)

10/554,222-322849-EIC SEARCH

IT Fuel cell electrolytes
(composite proton conductive inorg.-organic
films for fuel cells)

IT 154619-15-5P 161000-64-2P
273735-07-2P 770733-64-7P
792931-71-6P 792931-72-7P
792931-73-8P
RL: DEV (Device component use); IMF (Industrial manufacture); PREP
(Preparation); USES (Uses)
(composite proton conductive inorg.-organic
films for fuel cells)

OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE
THIS RECORD (3 CITINGS)

REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE
FOR THIS RECORD. ALL CITATIONS AVAILABLE
IN THE RE FORMAT

L47 ANSWER 4 OF 23 HCAPLUS COPYRIGHT 2010 ACS ON STN

ACCESSION NUMBER: 2004:139198 HCAPLUS Full-text

DOCUMENT NUMBER: 140:164777

TITLE: Curable compositions including
crosslinkable silyl-bearing vinyl
polymers and storage stabilizers

INVENTOR(S): Hasegawa, Nobuhiro; Nakagawa, Yoshiki

PATENT ASSIGNEE(S): Kanegafuchi Chemical Industry Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 52 pp.
CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004051726	A	20040219	JP 2002-209230	2002 0718
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PRIORITY APPLN. INFO.:			JP 2002-209230	2002 0718
<--				

OTHER SOURCE(S): MARPAT 140:164777

ED Entered STN: 20 Feb 2004

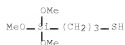
AB The comps. contain (i) vinyl polymers having crosslinkable silyl groups and (ii) storage stabilizers (e.g., dewatering agents like hydrolyzable esters, trialkyl orthoformates, organic silicones, etc.). The vinyl polymers may be prepared by atom-transfer radical polymerization catalyzed by transition metal-centered complexes. Thus, Bu acrylate was polymerized in the presence of CuBr, di-Et 2,5-dibromoadipate, and pentamethyldiethylenetriamine at 70° to give a polymer of Mn 21,000 and polydispersity 1.1, which was reacted with potassium undecenoate and then with SiH(OMe)3 in the presence of Pt(0)-vinylsiloxane complex to give a silyl-induced acrylic polymer of Mn 26,000 and polydispersity 1.2. Then, 100 parts of the polymer was formulated with tri-Me orthoformate 7, DOP 50, pentaerythritol triacrylate 3 parts, and fillers and additives to give a curable composition showing no gelation after 2 wk at 50° and complete gelation within 1 day after addition of dibutyltin diacetate.

IT 4420-74-0DEP, reaction products with alkenyl-terminated acrylate polymers 656247-27-7DP, hydrosilylation products with alkenyl-terminated poly(Bu acrylate)

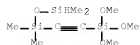
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(cured; storage-stable curable comps.
containing crosslinkable silyl-bearing vinyl polymers and
dewatering agents)

RN 4420-74-0 HCAPLUS

CN 1-Propanethiol, 3-(trimethoxysilyl)- (CA INDEX NAME)



RN 656247-27-7 HCAPLUS
 CN 3,8-Dioxa-2,4,7-trisilanon-5-yne, 7,7-dimethoxy-2,4,4-trimethyl-
 (CA INDEX NAME)



IC ICM C08L057-06
 ICS C08K005-10; C08K005-541
 CC 37-6 (Plastics Manufacture and Processing)
 Section cross-reference(s): 42
 ST dewaterant blended hydrosilylation curable acrylate
 compn; polybutyl acrylate methoxysilyl terminated orthoformate
 blended storability; vinyltrimethoxysilane storage stabilizer
 alkoxysilyl terminated acrylate polymer
 IT Silsesquioxanes
 RL: IMF (Industrial manufacture); TEM (Technical or engineered
 material use); PREP (Preparation); USES (Uses)
 (acrylic; storage-stable curable compns. containing
 crosslinkable silyl-bearing vinyl polymers and
 dewatering agents)
 IT Polymerization
 (atom transfer, radical; storage-stable curable
 compns. containing crosslinkable silyl-bearing vinyl
 polymers and dewatering agents)
 IT Esters, uses
 RL: MOA (Modifier or additive use); TEM (Technical or engineered
 material use); USES (Uses)
 (hydrolyzable, dewatering agents; storage-stable
 curable compns. containing crosslinkable
 silyl-bearing vinyl polymers and dewatering agents)
 IT Transition metal complexes
 RL: CAT (Catalyst use); USES (Uses)
 (radical polymerization catalysts; storage-stable curable
 compns. containing crosslinkable silyl-bearing vinyl
 polymers and dewatering agents)
 IT Hydrosilylation
 (storage-stable curable compns. containing
 crosslinkable silyl-bearing vinyl polymers and
 dewatering agents)
 IT Coating materials
 (storage-stable; storage-stable curable compns.
 containing crosslinkable silyl-bearing vinyl polymers and
 dewatering agents)
 IT 868-77-9DP, 2-Hydroxyethyl methacrylate, reaction products with
 acrylate polymers and isocyanatopropyltrimethoxysilane
 2487-90-3DP, Trimethoxysilane, hydrosilylation products with
 alkenyl-terminated acrylate polymers 3710-30-3DP, 1,7-Octadiene,
 reaction products with acrylate polymers and hydrosilanes
 4420-74-0DP, reaction products with alkenyl-terminated
 acrylate polymers 6159-41-7DP, reaction products with acrylate
 polymers and hydrosilanes 9003-49-0DP, Poly(butyl acrylate),

10/554,222-322849-EIC SEARCH

reaction products with potassium undecenoate and hydrosilanes
 15396-00-6DP, 3-Isocyanatopropyltrimethoxysilane, reaction
 products with hydroxy-terminated acrylate polymers 16881-77-9DP,
 Dimethoxymethylsilane, hydrosilylation products with
 alkenyl-terminated poly(Bu acrylate) 93410-24-3DP, Butyl
 acrylate-ethyl acrylate-2-methoxyethyl acrylate copolymer,
 reaction products with octadiene and hydrosilanes
 656247-27-7DP, hydrosilylation products with
 alkenyl-terminated poly(Bu acrylate)
 RL: IMF (Industrial manufacture); TEM (Technical or engineered
 material use); PREP (Preparation); USES (Uses)
 (cured; storage-stable curable compns.
 containing crosslinkable silyl-bearing vinyl polymers and
 dewatering agents)

IT 27775-58-2P, Pentaerythritol triacrylate homopolymer
 36446-02-3P, Trimethylolpropane triacrylate homopolymer
 RL: IMF (Industrial manufacture); TEM (Technical or engineered
 material use); PREP (Preparation); USES (Uses)
 (photocured components; storage-stable curable
 compns. containing crosslinkable silyl-bearing vinyl
 polymers and dewatering agents)

IT 11129-27-4, Copper bromide
 RL: CAT (Catalyst use); USES (Uses)
 (polymerization catalysts; storage-stable curable compns.
 containing crosslinkable silyl-bearing vinyl polymers and
 dewatering agents)

IT 78-10-4, Tetraethyl orthosilicate 149-73-5, Trimethyl
 orthoformate 2768-02-7, Vinyltrimethoxysilane
 RL: MOA (Modifier or additive use); TEM (Technical or engineered
 material use); USES (Uses)
 (storage stabilizers; storage-stable curable compns.
 containing crosslinkable silyl-bearing vinyl polymers and
 dewatering agents)

IT 112-38-9, 10-Undecenoic acid
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (storage-stable curable compns. containing
 crosslinkable silyl-bearing vinyl polymers and
 dewatering agents)

L47 ANSWER 5 OF 23 HCAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2003:377173 HCAPLUS Full-text

DOCUMENT NUMBER: 138:371759

TITLE: Proton conductive
membrane, its manufacture, and fuel
cell using the membraneINVENTOR(S): Nomura, Shigeki; Sugimoto, Toshiya; Nakamura,
Masanori; Yamauti, Kenji

PATENT ASSIGNEE(S): Sekisui Chemical Co., Ltd., Japan

SOURCE: PCT Int. Appl., 120 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003041091	A1	20030515	WO 2002-JP11242	2002 1029

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W: CA, CN, JP, KR, US
 RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR,
 IE, IT, LU, MC, NL, PT, SE, SK, TR
 CA 2433320 A1 20030515 CA 2002-2433320

2002

10/554,222-322849-EIC SEARCH

EP 1441365 A1 20040728 EP 2002-802706 <-- 1029
2002
1029

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE,
MC, PT, IE, FI, CY, TR, BG, CZ, EE, SK
JP 3679104 B2 20050803 JP 2003-543039 <--
2002
1029

CN 1230832 C 20051207 CN 2002-803316 <--
2002
1029

US 20040062970 A1 20040401 US 2003-450845 <--
2003
1021

US 7214756 B2 20070508 <--
HK 1063528 A1 20060317 HK 2004-106177
2004
0818

US 20070213495 A1 20070913 US 2007-727036 <--
2007
0323

PRIORITY APPLN. INFO.: <-- JP 2001-332977 A 2001
1030

<-- JP 2002-29781 A 2002
0206

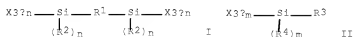
<-- JP 2002-109493 A 2002
0411

<-- WO 2002-JP11242 W 2002
1029

<-- US 2003-450845 A3 2003
1021

<--

OTHER SOURCE(S): MARPAT 138:371759
ED Entered STM: 16 May 2003
GI



AB The membrane contains a C-containing organic-inorg. structure, crosslinked by Si-O units by covalent bonds, and an acid group cong. structure crosslinked by Si-O units by covalent bonds. Preferably, the composite structure is I, where X = a crosslinking -O- or OH, R1 = C1-50 side chain, R2 = ME, Et, PR, or Ph, and n = 0, 1, or 2; and the acid

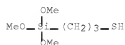
10/554,222-322849-EIC SEARCH

group. containing structure is II, where X = a crosslinking -O- or OH, R3 = sided chain containing 2l acid group, R4 = Me, Et, Pr, or Ph, and m = 0,1,or 2; and the membrane may also contain glass fibers or ceramic whiskers. The membrane is manufactured by: mixing crosslink-able silyl group containing precursors of the 2 structures, preparing membrane of the mixture, and hydrolyzing and condensate the precursors. The acid group may also be formed, after the condensation, by using precursors having function groups that can be to form acid groups by post-processing.

IT 4420-74-0BDP, 3-Mercaptopropyltrimethoxysilane, hydrolyzed, condensation products with hydrolyzed silyl compds., oxidized 31001-77-IDP, 3-Mercaptopropylmethyldimethoxysilane, hydrolyzed, condensed, oxidized 70942-24-4BDP, hydrolyzed, condensation products with hydrolyzed silyl compds. 161000-64-2BDP, X-41-1805, hydrolyzed, condensation products with hydrolyzed silyl compds., oxidized 469867-63-8BDP, 1,8-Bis(diethoxymethylsilyl)octane, hydrolyzed, condensation products with hydrolyzed silyl compds. 524729-76-8BDP, hydrolyzed, condensation products with hydrolyzed silyl compds., oxidized
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (comps. and manufacture of proton conductive membranes for fuel cell electrolytes)

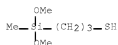
RN 4420-74-0 HCAPLUS

CN 1-Propanethiol, 3-(trimethoxysilyl)- (CA INDEX NAME)



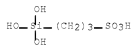
RN 31001-77-1 HCAPLUS

CN 1-Propanethiol, 3-(dimethoxymethylsilyl)- (CA INDEX NAME)



RN 70942-24-4 HCAPLUS

CN 1-Propanesulfonic acid, 3-(trihydroxysilyl)- (CA INDEX NAME)



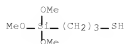
RN 161000-64-2 HCAPLUS

CN Silicic acid (H4SiO4), tetraethyl ester, polymer with 3-(trimethoxysilyl)-1-propanethiol (CA INDEX NAME)

CM 1

CRN 4420-74-0

CMF C6 H16 O3 S Si



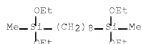
CM 2

CRN 78-10-4

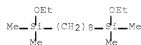
CMF C8 H20 O4 S1



RN 469867-63-8 HCAPLUS

CN 3,14-Dioxa-4,13-disilahehexadecane, 4,13-diethoxy-4,13-dimethyl-
(CA INDEX NAME)

RN 524729-76-8 HCAPLUS

CN 3,14-Dioxa-4,13-disilahehexadecane, 4,4,13,13-tetramethyl- (CA
INDEX NAME)

IC ICM H01B001-06

ICS H01M008-02; H01M008-10; C08J005-22; C08G077-50

CC 52-2 (Electrochemical, Radiational, and Thermal Energy Technology)

ST fuel cell proton conductive silicon contg

polymer membrane manuf

IT Glass fibers, uses

RL: MOA (Modifier or additive use); USES (Uses)

(comps. and manufacture of proton conductive

membranes containing glass whiskers and glass fibers for

fuel cell electrolytes)

IT Electric conductors

Fuel cell electrolytes

(comps. and manufacture of proton conductive

membranes for fuel cell electrolytes)

IT Polysiloxanes, uses

RL: IMF (Industrial manufacture); TEM (Technical or engineered

material use); PREP (Preparation); USES (Uses)

(di-Me, di-Ph, hydroxy-terminated, hydrolyzed, condensation

products with hydrolyzed silyl comps.; comps. and manufacture of

10/554,222-322849-EIC SEARCH

proton conductive membranes for
fuel cell electrolytes)

IT Polysiloxanes, uses
RL: IMF (Industrial manufacture); TEM (Technical or engineered
material use); PREP (Preparation); USES (Uses)
(mercapto, hydrolyzed, condensation products with hydrolyzed
silyl compds., oxidized; compns. and manufacture of proton
conductive membranes for fuel cell
electrolytes)

IT 12056-51-8, Potassium titanium oxide (K2Ti6O13) 12400-04-3,
Aluminum borate oxide (Al2(BO2)4O)
RL: MOA (Modifier or additive use); USES (Uses)
(compns. and manufacture of proton conductive
membranes containing glass whiskers and glass fibers for
fuel cell electrolytes)

IT 4420-74-ODP, 3-Mercaptopropyltrimethoxysilane,
hydrolyzed, condensation products with hydrolyzed silyl compds.,
oxidized 4420-74-ODP,
3-Mercaptopropyltrimethoxysilane, hydrolyzed, condensed, oxidized
7631-90-5DP, Sodium bisulfite, reaction products with hydrolyzed
silyl compds. 28323-47-9DP, PSI 021, hydrolyzed, condensation
products with hydrolyzed silyl compds. 31001-77-IDF,
3-Mercaptopropylmethyldimethoxysilane, hydrolyzed, condensed,
oxidized 31692-79-2DP, DMS s12, hydrolyzed, condensation
products with hydrolyzed silyl compds. 40372-72-3DP, SIB 1825.0,
hydrolyzed, condensation products with hydrolyzed silyl compds.,
oxidized 51826-90-5DP, 3-Bromopropyltrimethoxysilane,
hydrolyzed, condensed, reaction products with sodium bisulfite
52217-60-4DP, 1,8-Bis(triethoxysilyl)octane, hydrolyzed,
condensation products with hydrolyzed silyl compds.
56706-10-6DP, KBE 886B, hydrolyzed, condensation products with
hydrolyzed silyl compds., oxidized 70942-24-4DP,
hydrolyzed, condensation products with hydrolyzed silyl compds.
87135-01-IDP, 1,6-Bis(trimethoxysilyl)hexane, hydrolyzed,
condensation products with hydrolyzed silyl compds.
148229-61-2DP, hydrolyzed, condensation products with hydrolyzed
silyl compds. 161900-64-2DP, X-41-1805, hydrolyzed,
condensation products with hydrolyzed silyl compds., oxidized
164849-42-7DP, X 40-2090, hydrolyzed, condensation products with
hydrolyzed silyl compds. 469867-63-8DP,
1,8-Bis(diethoxymethylsilyl)octane, hydrolyzed, condensation
products with hydrolyzed silyl compds. 469867-63-8DP,
1,8-Bis(diethoxymethylsilyl)octane, hydrolyzed, condensation
products with hydrolyzed silyl compds., oxidized 524729-75-7DP,
hydrolyzed, condensation products with hydrolyzed silyl compds.,
oxidized 524729-76-8DP, hydrolyzed, condensation
products with hydrolyzed silyl compds., oxidized
RL: IMF (Industrial manufacture); TEM (Technical or engineered
material use); PREP (Preparation); USES (Uses)
(compns. and manufacture of proton conductive
membranes for fuel cell electrolytes)

OS.CITING REF COUNT: 5 THERE ARE 5 CAPLUS RECORDS THAT CITE
THIS RECORD (11 CITINGS)

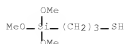
REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE
FOR THIS RECORD. ALL CITATIONS AVAILABLE
IN THE RE FORMAT

L47 ANSWER 6 OF 23 HCAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 2003:6011 HCAPLUS Full-text
DOCUMENT NUMBER: 138:56876
TITLE:
Rapid curable composition containing
silyl group-terminated vinyl polymer excellent
curability
INVENTOR(S): Hasegawa, Nobuhiro; Nakagawa, Yoshiaki
PATENT ASSIGNEE(S): Kaneka Corporation, Japan
SOURCE: PCT Int. Appl., 105 pp.
CODEN: PIXXD2

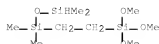
10/554,222-322849-EIC SEARCH

DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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WO 2003000749	A1	20030103	WO 2002-JP3539	2002 0409
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W: JP, US				
RN: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				
EP 1406932	A1	20040414	EP 2002-714561	2002 0409
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EP 1406932	B1	20071212		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR				
JP 2005502737	T	20050127	JP 2003-507152	2002 0409
<--				
US 20040210019	A1	20041021	US 2004-481283	2004 0524
<--				
PRIORITY APPLN. INFO.:		JP 2001-188550	A	2001 0621
<--				
		WO 2002-JP3539	W	2002 0409
<--				
ED	Entered STN: 05 Jan 2003			
AB	A quick curing composition comprises a vinyl polymer having a crosslinking silyl group-terminated main chain, wherein the crosslinking silyl group is represented by the general formula -SiY _a R _{3-a} , wherein R represents an C1-C20 alkyl group, an C6-C20 aryl group, a C7-C20 alkyl group or a triorganosiloxy group represented by (R') SiO-, R' is a univalent C1-C20 hydrocarbon group and the three R' groups may be the same or different, and, when there are two or more R groups, they may be the same or different; Y represents a hydroxyl group or a hydrolyzable group and, when there are two or more Y groups, they may be the same or different; and a represents 1, 2 or 3. Thus, a composition with skinning time 0.3 h was prepared from reaction products of polybutyl acrylate, potassium undecenoate, and trimethoxysilane in the presence of dibutyltin diacetylacetonate (U 220, curing catalyst).			
IT	4420-74-0DF, 3-Mercaptopropyltrimethoxysilane, reaction products with alkenyl group-containing polymer 137407-6S-9DP, 1-(2-Trimethoxysilylethyl)-1,1,3,3-tetramethyldisiloxane, reaction products with alkenyl group-containing polymer RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (preparation rapid curable composition containing silyl group-terminated vinyl polymer excellent curability)			
RN	4420-74-0 HCAPLUS			
CN	1-Propanethiol, 3-(trimethoxysilyl)- (CA INDEX NAME)			



RN 137407-65-9 HCAPLUS
 CN 3,8-Dioxa-2,4,7-trisilanonane, 7,7-dimethoxy-2,4,4-trimethyl- (CA
 INDEX NAME)



IC ICM C08F008-42
 CC 37-6 (Plastics Manufacture and Processing)
 ST curing compn polybutyl acrylate potassium undecenoate
 trimethoxysilane
 IT Linseed oil
 Tung oil
 RL: MOA (Modifier or additive use); USES (Uses)
 (air oxidation curing agent; preparation rapid
 curable composition containing silyl group-terminated vinyl
 polymer excellent curability)
 IT Crosslinking agents
 Crosslinking catalysts
 (preparation rapid curable composition containing silyl
 group-terminated vinyl polymer excellent curability)
 IT Polysiloxanes, uses
 RL: MOA (Modifier or additive use); USES (Uses)
 (preparation rapid curable composition containing silyl
 group-terminated vinyl polymer excellent curability)
 IT 471-34-1, Hakuenka CCR, uses
 RL: MOA (Modifier or additive use); USES (Uses)
 (Hanox 25A, filler; preparation rapid curable composition
 containing silyl group-terminated vinyl polymer excellent
 curability)
 IT 2627-95-4D, 1,1,3,3-Tetramethyl-1,3-divinyldisiloxane, platinum
 complex 4288-15-7, Stannous octylate 7440-06-4D, Platinum,
 1,1,3,3-tetramethyl-1,3-divinyldisiloxane complex 22673-19-4, U
 220
 RL: CAT (Catalyst use); USES (Uses)
 (curing catalyst; preparation rapid curable
 composition containing silyl group-terminated vinyl polymer excellent
 curability)
 IT 124-22-1, Laurylamine
 RL: CAT (Catalyst use); USES (Uses)
 (curing promoter; preparation rapid curable
 composition containing silyl group-terminated vinyl polymer excellent
 curability)
 IT 2768-02-7, Vinyltrimethoxysilane
 RL: MOA (Modifier or additive use); USES (Uses)
 (dehydrating agent; preparation rapid curable composition
 containing silyl group-terminated vinyl polymer excellent
 curability)
 IT 11097-59-9, Kyowaad 500SH 54065-80-4, Kyowaad 700PEL
 RL: MOA (Modifier or additive use); USES (Uses)
 (filler; preparation rapid curable composition containing silyl
 group-terminated vinyl polymer excellent curability)
 IT 6159-41-7P, 10-Undecenoic acid, potassium salt
 RL: IMF (Industrial manufacture); RCT (Reactant); PREP

10/554,222-322849-EIC SEARCH

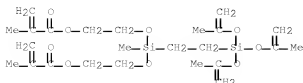
- (Preparation); RACT (Reactant or reagent)
(intermediate; preparation rapid curable composition containing silyl group-terminated vinyl polymer excellent curability)
- IT 9003-17-2
RL: MOA (Modifier or additive use); USES (Uses)
(of 1,2-configuration, air oxidation curing agent; preparation rapid curable composition containing silyl group-terminated vinyl polymer excellent curability)
- IT 10441-87-9, Trimethylolpropane triacetate 13051-30-4, Pentaerythritol triacetate
RL: MOA (Modifier or additive use); USES (Uses)
(photocuring agent; preparation rapid curable composition containing silyl group-terminated vinyl polymer excellent curability)
- IT 117-81-7, DOP 9003-07-0, PN 260
RL: MOA (Modifier or additive use); USES (Uses)
(plasticizer; preparation rapid curable composition containing silyl group-terminated vinyl polymer excellent curability)
- IT 149-73-5
RL: CAT (Catalyst use); USES (Uses)
(preparation rapid curable composition containing silyl group-terminated vinyl polymer excellent curability)
- IT 127-08-2DP, Potassium acetate, reaction products with Bu acrylate polymer 582-25-2DP, Potassium benzoate, reaction products with Bu acrylate-1,7-octadiene copolymer 2487-90-3DP, Trimethoxysilane, reaction products with alkenyl group-containing polymer 4420-74-ODE, 3-Mercaptopropyltrimethoxysilane, reaction products with alkenyl group-containing polymer 9003-49-ODP, Butyl acrylate homopolymer, reaction products with 10-undecenoic acid, potassium salt 9003-49-OP, Butyl acrylate homopolymer 16881-77-9DP, Dimethoxymethylsilane, reaction products with alkenyl group-containing polymer 30600-43-2DP, Butyl acrylate-2-hydroxyethyl methacrylate copolymer, reaction products with isocyanatopropyltrimethoxysilane 137407-65-9DE, 1-(2-Trimethoxysilylethyl)-1,1,3,3-tetramethyldisiloxane, reaction products with alkenyl group-containing polymer 221172-33-4DP, Butyl acrylate-1,7-octadiene copolymer, reaction products with potassium benzoate
RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(preparation rapid curable composition containing silyl group-terminated vinyl polymer excellent curability)
- IT 6159-41-7DP, 10-Undecenoic acid, potassium salt, reaction products with poly(Bu acrylate)
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(preparation rapid curable composition containing silyl group-terminated vinyl polymer excellent curability)
- IT 77-99-6D, Trimethylolpropane, tris(trimethylsilyl) derivs. 999-97-3, Hexamethyldisilazane 1529-17-5, Trimethylphenoxysilane
RL: MOA (Modifier or additive use); USES (Uses)
(preparation rapid curable composition containing silyl group-terminated vinyl polymer excellent curability)
- IT 15396-00-6D, γ -Isocyanatopropyltrimethoxysilane, reaction products with Bu acrylate-2-hydroxyethyl methacrylate copolymer
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(preparation rapid curable composition containing silyl group-terminated vinyl polymer excellent curability)
- IT 112-38-9, 10-Undecenoic acid 865-47-4
RL: RCT (Reactant); RACT (Reactant or reagent)
(starting material; preparation rapid curable composition containing silyl group-terminated vinyl polymer excellent

durability)
 OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE
 THIS RECORD (3 CITINGS)
 REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE
 FOR THIS RECORD. ALL CITATIONS AVAILABLE
 IN THE RE FORMAT

L47 ANSWER 7 OF 23 HCAPLUS COPYRIGHT 2010 ACS on STN
 ACCESSION NUMBER: 2002:607773 HCAPLUS Full-text
 DOCUMENT NUMBER: 137:156191
 TITLE: Primer compositions with durable adhesion to
 silicone rubbers
 INVENTOR(S): Inoue, Yoshifumi; Kozai, Toshiyuki; Hara,
 Hiroyasu
 PATENT ASSIGNEE(S): Shin-Etsu Chemical Industry Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 17 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

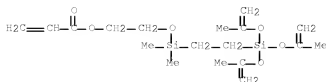
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002226777	A	20020814	JP 2001-30121	2001 0206
			<--	
JP 4115673	B2	20080709	JP 2001-30121	2001 0206
PRIORITY APPLN. INFO.:				

ED Entered STN: 14 Aug 2002
 AB Title compns. contain organic silicones (HCRI:CR2COOZ1)3-mSiR3mZ2SiR3nX3-n [R1 = H or
 (halogenated) Ph; R2 = H or Me; R3 = (substituted) C1-10 hydrocarbyl; X = hydrolyzable
 group; Z1 = R4, R4O, R4(CH3)2SiO with R4 = (substituted) C1-10 hydrocarbylene; Z2 = O
 or (substituted) C1-10 hydrocarbylene; m = 0-2; n = 0-2]. An Al plate was coated with
 a composition comprising BuOH, Ti(OBu)4, and
 1-methyl-bis(2-methacryloxyethoxy)silyl-2- triisopropenoxysilylethane [from Cl2MeSiH,
 vinyltris(isopropenyloxy)silane, and 2-hydroxyethyl methacrylate], dried, covered with
 a RE 1330, and press-cured at 120° for 10 min to form a laminate showing good adhesion
 initially and after 103 h at 230°.
 IT 419548-80-4P 419548-81-5P
 419548-82-6P 419548-85-9P
 419548-86-0P 445389-58-2P
 445389-59-3P
 RL: IMF (Industrial manufacture); RCT (Reactant); PREP
 (Preparation); RACT (Reactant or reagent)
 ((meth)acryloxy- and alkoxy-containing silane-based primers for
 silicone rubbers with heat-resistant adhesion to (coated)
 metals or plastics)
 RN 419548-80-4 HCAPLUS
 CN 2-Propenoic acid, 2-methyl-,
 [methyl[2-[tris[(1-methylethenyl)oxy)silyl]ethyl]silylene]bis(oxy-
 2,1-ethanediyl) ester (9CI) (CA INDEX NAME)



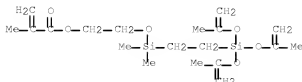
RN 419548-81-5 HCAPLUS

CN 2-Propenoic acid, 4,4,9-trimethyl-7,7-bis[(1-methylethenyl)oxy]-3,8-dioxa-4,7-disiladec-9-en-1-yl ester (CA INDEX NAME)



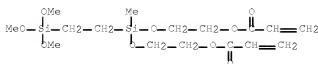
RN 419548-82-6 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 4,4,9-trimethyl-7,7-bis[(1-methylethenyl)oxy]-3,8-dioxa-4,7-disiladec-9-en-1-yl ester (CA INDEX NAME)



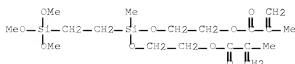
RN 419548-85-9 HCAPLUS

CN 2-Propenoic acid, [methyl[2-(trimethoxysilyl)ethyl]silylene]bis(oxy-2,1-ethanediyl) ester (9CI) (CA INDEX NAME)



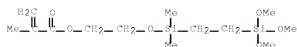
RN 419548-86-0 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, [methyl[2-(trimethoxysilyl)ethyl]silylene]bis(oxy-2,1-ethanediyl) ester (9CI) (CA INDEX NAME)

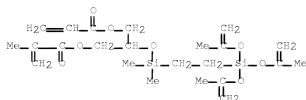


10/554,222-322849-EIC SEARCH

RN 445389-58-2 HCAPLUS
 CN 2-Propenoic acid, 2-methyl-,
 7,7-dimethoxy-4,4-dimethyl-3,8-dioxa-4,7-disilanon-1-yl ester (CA
 INDEX NAME)



RN 445389-59-3 HCAPLUS
 CN 2-Propenoic acid, 2-methyl-,
 4,4,9-trimethyl-7,7-bis[(1-methylethenyl)oxy]-2-[[[(1-oxo-2-propen-1-yl)oxy]methyl]-3,8-dioxa-4,7-disiladec-9-en-1-yl ester (CA
 INDEX NAME)



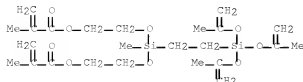
IT 445389-60-6P 445389-61-7P
 445389-62-8P 445389-64-0P
 445389-65-1P 445389-69-5P
 445389-70-8P 445389-71-9P
 445389-72-0P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 ((meth)acryloxy- and alkoxy-containing silane-based primers for silicone rubbers with heat-resistant adhesion to (coated) metals or plastics)

RN 445389-60-6 HCAPLUS
 CN 2-Propenoic acid, 2-methyl-,
 [methyl[2-[tris[(1-methylethenyl)oxy]silyl]ethyl)silylene]bis(oxy-2,1-ethanediy) ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 419548-80-4
 CMF C24 H40 O9 Si2



RN 445389-61-7 HCAPLUS
 CN 2-Propenoic acid, 2-methyl-,
 [methyl[2-(trimethoxysilyl)ethyl)silylene]bis(oxy-2,1-ethanediy)

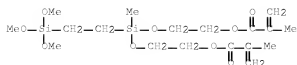
10/554,222-322849-EIC SEARCH

ester, polymer with silicic acid (H4SiO4) tetraethyl ester (9CI)
(CA INDEX NAME)

CM 1

CRN 419548-86-0

CMF C18 H34 O9 Si2



CM 2

CRN 78-10-4

CMF C8 H20 O4 Si



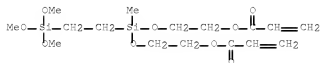
RN 445389-62-8 HCAPLUS

CN 2-Propenoic acid, [methyl[2-(trimethoxysilyl)ethyl]silylene]bis(oxy-2,1-ethanediyl) ester, polymer with silicic acid (H4SiO4) tetraethyl ester (9CI) (CA INDEX NAME)

CM 1

CRN 419548-85-9

CMF C16 H30 O9 Si2



CM 2

CRN 78-10-4

CMF C8 H20 O4 Si



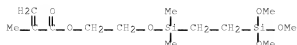
RN 445389-64-0 HCAPLUS

CN 2-Propenoic acid, 2-methyl-,
7,7-dimethoxy-4,4-dimethyl-3,8-dioxo-4,7-disilanon-1-yl ester,
polymer with 3-(trimethoxysilyl)-1-propanethiol (9CI) (CA INDEX
NAME)

CM 1

CRN 445389-58-2

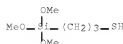
CMF C13 H28 O6 S12



CM 2

CRN 4420-74-0

CMF C6 H16 O3 S 51



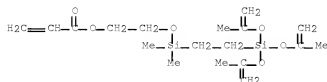
RN 445389-65-1 HCAPLUS

CN 2-Propenoic acid, 4,4,9-trimethyl-7,7-bis[(1-methylethenyl)oxy]-
3,8-dioxo-4,7-disiladec-9-en-1-yl ester, polymer with
trimethoxymethylsilane and 3-(trimethoxysilyl)-1-propanethiol
(9CI) (CA INDEX NAME)

CM 1

CRN 419548-81-5

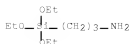
CMF C18 H32 O6 S12



CM 2

CRN 4420-74-0

CMF C6 H16 O3 S 51



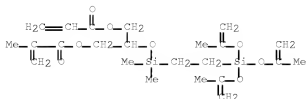
RN 445389-70-8 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 3-(trimethoxysilyl)propyl ester, polymer with trimethoxymethylsilane and 4, 4, 9-trimethyl-7, 7-bis[(1-methylethenyl)oxy]-2-[[[(1-oxo-2-propenyl)oxy]methyl]-3,8-dioxo-4, 7-disiladec-9-en-1-yl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 445389-59-3

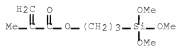
CMF C23 H38 O8 S12



CM 2

CRN 2530-85-0

CMF C10 H20 O5 Si



CM 3

CRN 1185-55-3

CMF C4 H12 O3 Si



RN 445389-71-9 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 3-(trimethoxysilyl)propyl ester, polymer with 3-(triethoxysilyl)-1-propanamine, trimethoxymethylsilane and 4,4,9-trimethyl-7,7-bis[(1-methylethenyl)oxy]-3,8-dioxo-4,7-

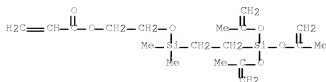
10/554,222-322849-EIC SEARCH

disiladec-9-en-1-yl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 419548-81-5

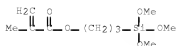
CMF C18 H32 O6 Si2



CM 2

CRN 2530-85-0

CMF C10 H20 O5 Si



CM 3

CRN 1185-55-3

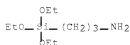
CMF C4 H12 O3 Si



CM 4

CRN 919-30-2

CMF C9 H23 N O3 Si



RN 445389-72-0 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 3-(trimethoxysilyl)propyl ester, polymer with trimethoxymethylsilane, 3-(trimethoxysilyl)-1-propanethiol and 4,4,9-trimethyl-7,7-bis[(1-methylethenyl)oxy]-2-[[[(1-oxo-2-

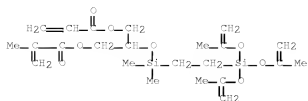
10/554,222-322849-EIC SEARCH

propenyl)oxy)methyl]-3,8-dioxa-4,7-disiladec-9-en-1-yl
2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 445389-59-3

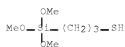
CMF C23 H38 O8 Si2



CM 2

CRN 4420-74-0

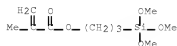
CMF C6 H16 O3 S Si



CM 3

CRN 2530-85-0

CMF C10 H20 O5 Si



CM 4

CRN 1185-55-3

CMF C4 H12 O3 Si



IT 445389-63-9P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

10/554,222-322849-EIC SEARCH

(meth)acryloxy- and alkoxy-containing silanes from;
(meth)acryloxy- and alkoxy-containing silane-based primers for
silicone rubbers with heat-resistant adhesion to (coated) metals or plastics)

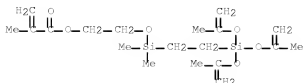
RN 445389-63-9 HCAPLUS

CN 2-Propenoic acid, 2-methyl-,
4,4,9-trimethyl-7,7-bis[(1-methylethenyl)oxy]-3,8-dioxo-4,7-
disiladec-9-en-1-yl ester, polymer with ethenyltrimethoxysilane
(9CI) (CA INDEX NAME)

CM 1

CRN 419548-82-6

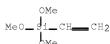
CMF C19 H34 O6 S12



CM 2

CRN 2768-02-7

CMF C5 H12 O3 S1



IC ICM C09D183-04

ICS C09D005-00; C09D143-04

CC 42-10 (Coatings, Inks, and Related Products)

Section cross-reference(s): 39

ST metal laminate silicone rubber acryloxyalkoxysilane

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primer: plastic initiator silicone rubber
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acryloxvalkoxysilane primer: heat resistant adhesion

acryloxvalkoxysilane primer, heat resistant
acryloxvalkoxysilane primer silicone rubber

IT Primers (paints)

((meth)acryloxy- and alkoxy-containing silane-based primers for silicone rubbers with heat-resistant adhesion to (coated) metals or plastics)

IT Polysiloxanes, uses

Silsesquioxanes

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

((meth)acryloxy- and alkoxy-containing silane-based primers for silicone rubbers with heat-resistant adhesion to (coated) metals or plastics)

IT Silicone rubber, miscellaneous

RL: MSC (Miscellaneous)

(KE 17, KLE 17; (meth)acryloxy- and alkoxy-containing silane-based primers for silicone rubbers with heat-resistant adhesion to (coated) metals or plastics)

IT Adhesives

10/554,222-322849-EIC SEARCH

(heat-resistant; (meth)acryloxy- and alkoxy-containing silane-based primers for silicone rubbers with heat-resistant adhesion to (coated) metals or plastics)

- IT Fluoropolymers, miscellaneous
Metals, miscellaneous
Polyamides, miscellaneous
Polycarbonates, miscellaneous
RL: MSC (Miscellaneous)
(substrates; (meth)acryloxy- and alkoxy-containing silane-based primers for silicone rubbers with heat-resistant adhesion to (coated) metals or plastics)
- IT Silicone rubber, miscellaneous
RL: MSC (Miscellaneous)
(vinyl group-containing, KE 951U; (meth)acryloxy- and alkoxy-containing silane-based primers for silicone rubbers with heat-resistant adhesion to (coated) metals or plastics)
- IT 419548-80-4P 419548-81-5P 419548-82-6P 419548-83-7P 419548-85-9P 419548-86-0P 445389-58-2P 445389-59-3P
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(meth)acryloxy- and alkoxy-containing silane-based primers for silicone rubbers with heat-resistant adhesion to (coated) metals or plastics)
- IT 445389-60-6P 445389-61-7P 445389-62-8P 445389-64-0P 445389-65-1P 445389-67-3P 445389-69-5P 445389-70-8P 445389-71-9P 445389-72-0P 445389-73-1P
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(meth)acryloxy- and alkoxy-containing silane-based primers for silicone rubbers with heat-resistant adhesion to (coated) metals or plastics)
- IT 445389-63-9P
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(meth)acryloxy- and alkoxy-containing silanes from;
(meth)acryloxy- and alkoxy-containing silane-based primers for silicone rubbers with heat-resistant adhesion to (coated) metals or plastics)
- IT 75-54-7, Dichloromethylsilane 681-84-5, Tetramethoxysilane 818-61-1, 2-Hydroxyethyl acrylate 868-77-9, 2-Hydroxyethyl methacrylate 1066-35-9, Dimethylchlorosilane 1709-71-3, 2-Hydroxy-1-acryloxy-3-methacryloxypropane 2768-02-7, Vinyltrimethoxysilane 15332-99-7, Vinyltriisopropenoxysilane 118536-45-1
RL: RCT (Reactant); RACT (Reactant or reagent)
(meth)acryloxy- and alkoxy-containing silanes from;
(meth)acryloxy- and alkoxy-containing silane-based primers for silicone rubbers with heat-resistant adhesion to (coated) metals or plastics)

L47 ANSWER 8 OF 23 HCAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2001:844937 HCAPLUS Full-text

DOCUMENT NUMBER: 135:372554

TITLE: Waterborne silicone adhesives, sealants and coatings, silicone emulsion, and application to substrate

INVENTOR(S): Huang, Misty Weiyy; Waldman, Bruce A.; Cooke, Jeff A.

PATENT ASSIGNEE(S): CK Witco Corp., USA

SOURCE: U.S., 8 pp., Cont.-in-part of U.S. 6,037,008.

CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

10/554,222-322849-EIC SEARCH

FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6319982	B1	20011120	US 1999-340347	1999 0625
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AT 313609	T	20060115	AT 1999-117416	1999 0907
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ES 2252897	T3	20060516	ES 1999-117416	1999 0907
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CN 1249320	A	20000405	CN 1999-121885	1999 0908
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CN 1245461	C	20060315		
KR 2000022967	A	20000425	KR 1999-38009	1999 0908
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JP 2000212513	A	20000802	JP 1999-253701	1999 0908
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BR 9904091	A	20000912	BR 1999-4091	1999 0908
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MX 9908255	A	20000930	MX 1999-8255	1999 0908
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TW 554024	B	20030921	TW 1999-88115490	1999 0908
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US 6294620	B1	20010925	US 2000-524632	2000 0314
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WO 2001000711	A1	20010104	WO 2000-US15977	2000 0609
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W:	AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZA, ZW			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
EP 1194475	A1	20020410	EP 2000-942734	2000 0609
			<--	
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO			

10/554,222-322849-EIC SEARCH

JP 200303570	T	20030128	JP 2001-506718	2000 0609
			<---	
HK 1024496	A1	20060908	HK 2000-103653	2000 0616
			<---	
JP 2006124713	A	20060518	JP 2005-326250	2005 1110
			<---	
PRIORITY APPLN. INFO.:			US 1998-149337	A2 1998 0908
			<---	
			US 1999-340347	A 1999 0625
			<---	
			JP 2001-506718	A3 2000 0609
			<---	
			WO 2000-US15977	W 2000 0609

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

ED Entered STN: 21 Nov 2001

AB A storage stable aqueous silicone emulsion composition which cures upon drying comprises a blend of (a) ≥ 1 emulsion which collectively comprise a reactive polymer/crosslinker system comprising ≥ 1 condensable polyorganosiloxane polymer and ≥ 1 crosslinking compound which may be the same or different than the condensable polyorganosiloxane polymer, the crosslinking compound having several hindered alkoxy groups, and (b) a sep. aqueous emulsion comprising a silicon condensation catalyst.

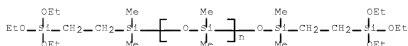
IT 210548-76-8P 315716-81-5P

RL: IMF (Industrial manufacture); POF (Polymer in formulation);
TEM (Technical or engineered material use); PREP (Preparation);
USES (Uses)

(Storage stable aqueous silicone emulsion composition used as adhesives,
sealants and coatings)

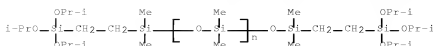
RN 210548-76-8 HCAPLUS

CN Poly[oxy(dimethylsilylene)],
 α -[dimethyl[2-(triethoxysilyl)ethyl]silyl]- ω -
[[dimethyl[2-(triethoxysilyl)ethyl]silyl]oxy]- (CA INDEX NAME)

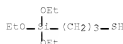


RN 315716-81-5 HCAPLUS

CN Poly[oxy(dimethylsilylene)],
 α -[dimethyl[2-[tris(1-methylethoxy)silyl]ethyl]silyl]-
 ω -[[dimethyl[2-[tris(1-methylethoxy)silyl]ethyl]silyl]oxy]-
(9CI) (CA INDEX NAME)



- IT 14814-09-6, 3-Mercaptopropyltriethoxysilane
 RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
 (adhesion promoter; Storage stable aqueous silicone emulsion composition used as adhesives, sealants and coatings)
- RN 14814-09-6 HCAPLUS
- CN 1-Propanethiol, 3-(triethoxysilyl)- (CA INDEX NAME)



- IC ICM C08L083-06
 INCL 524837000
 CC 37-6 (Plastics Manufacture and Processing)
 ST crosslinkable silicone emulsion; waterborne organopolysiloxane adhesive sealant coating
- IT Adhesion promoters
 Adhesives
 Coating materials
 Crosslinking agents
 Sealing compositions
 (Storage stable aqueous silicone emulsion composition used as adhesives, sealants and coatings)
- IT Polysiloxanes, preparation
 RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (having hydrolyzed hindered alkoxy end groups; Storage stable aqueous silicone emulsion composition used as adhesives, sealants and coatings)
- IT 210548-76-8P 315716-81-5P
 RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (Storage stable aqueous silicone emulsion composition used as adhesives, sealants and coatings)
- IT 2602-34-8, 3-Glycidoxypropyltriethoxysilane 10217-34-2,
 β -(3,4-Epoxy cyclohexyl)-ethyltriethoxysilane
 14814-09-6, 3-Mercaptopropyltriethoxysilane 17865-41-7
 18545-02-3, Triisobutoxyvinylsilane 20208-39-3 21142-29-0,
 3-Methacryloxypropyltriethoxysilane 80750-05-6,
 3-Methacryloxypropyltriisopropoxysilane 82194-46-5,
 Tris(3-triethoxysilylpropyl)isocyanurate 108764-53-0
 189450-93-9, β -(3,4-Epoxy cyclohexyl)-ethyltriisobutoxysilane
 189458-71-7, 3-Methacryloxypropyltriisobutoxysilane 261155-85-5
 RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
 (adhesion promoter; Storage stable aqueous silicone emulsion composition used as adhesives, sealants and coatings)
- IT 78-08-0, Triethoxyvinylsilane 18023-33-1,
 Triisopropoxyvinylsilane
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (hydrosilation; Storage stable aqueous silicone emulsion composition

10/554,222-322849-EIC SEARCH

used as adhesives, sealants and coatings)

IT 68298-38-4, FASCAT 4224

RL: CAT (Catalyst use); USES (Uses)

(organotin catalyst; Storage stable aqueous silicone emulsion

composition used as adhesives, sealants and coatings)

OS.CITING REF COUNT: 7 THERE ARE 7 CAPLUS RECORDS THAT CITE

THIS RECORD (7 CITINGS)

REFERENCE COUNT: 26 THERE ARE 26 CITED REFERENCES AVAILABLE
FOR THIS RECORD. ALL CITATIONS AVAILABLE
IN THE RE FORMAT

L47 ANSWER 9 OF 23 HCAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2000:484156 HCAPLUS Full-text

DOCUMENT NUMBER: 133:90513

TITLE: Curable resin compositions
containing dendritic graft copolymers and
cured products with excellent
flexibilityINVENTOR(S): Morita, Koji; Ueki, Hiroshi; Aso, Takayuki;
Furukawa, Haruhiko; Yoshitake, Makoto

PATENT ASSIGNEE(S): Dow Corning Toray Silicone Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 16 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 2000198939

A

20000718

JP 1999-135865

1999

0517

<--

PRIORITY APPLN. INFO.:

JP 1998-305137

A

1998

1027

<--

ED Entered STN: 18 Jul 2000

AB The comps., useful for sealants, adhesives, etc., contain curable resins and vinyl polymers having side chains with carbosiloxane dendritic structures. Thus, a composition containing novolak 100, copolymer (prepared from methacrylic acid-terminated dendrimer 29.6, glycidyl methacrylate 4.8, and Bu acrylate 60.0 parts) 20, and hexamethylenetetramine 11.4 parts was molded into a test piece showing flexural modulus 990 kg/cm² and thermal expansion coefficient 0.7 + 10⁻⁵ /°C. A semiconductor device sealed with the composition showed good thermal shock resistance.

IT 282098-47-9P 282098-49-1F

RL: IMF (Industrial manufacture); POF (Polymer in formulation);

PRP (Properties); TEM (Technical or engineered material use); PREP

(Preparation); USES (Uses)

(curable resin comps. containing carbosiloxane

dendrimer-pendant vinyl polymers for sealing semiconductor

devices)

RN 282098-47-9 HCAPLUS

CN 2-Propenoic acid, 2-methyl-,

3-[1,1-bis[[dimethyl[2-[3,3,3-trimethyl-1,1-

bis[(trimethylsilyl)oxy]disiloxanyl]ethyl]silyl]oxy]-3,3-dimethyl-

3-[2-[3,3,3-trimethyl-1,1-

bis[(trimethylsilyl)oxy]disiloxanyl]ethyl]disiloxanyl]propyl

ester, telomer with butyl 2-propenoate, oxiranylmethyl

2-methyl-2-propenoate and 3-(trimethoxysilyl)-1-propanethiol (9CI)

(CA INDEX NAME)

CM 1

CRN 4420-74-0



CM 6

CRN 80-62-6

CMF C5 H8 O2



- IC ICM C08L101-00
ICS C08L043-04; C08L057-06; C08L061-06; C08L063-00; C08L079-08;
C08L083-00
- CC 38-3 (Plastics Fabrication and Uses)
Section cross-reference(s): 76
- ST phenolic resin curability semiconductor device
packaging; carbosiloxane dendrimer pendant vinyl polymer
flexibility; thermal shock resistance dendrimer epoxy blend
- IT Electronic packaging materials
(curable resin compns. containing carbosiloxane
dendrimer- pendant vinyl polymers for sealing semiconductor
devices)
- IT Dendritic polymers
RL: IMF (Industrial manufacture); POF (Polymer in formulation);
PRP (Properties); TEM (Technical or engineered material use); PREP
(Preparation); USES (Uses)
(curable resin compns. containing carbosiloxane
dendrimer- pendant vinyl polymers for sealing semiconductor
devices)
- IT Polymer blends
RL: PRP (Properties); TEM (Technical or engineered material use);
USES (Uses)
(curable resin compns. containing carbosiloxane
dendrimer- pendant vinyl polymers for sealing semiconductor
devices)
- IT Phenolic resins, uses
Phenolic resins, uses
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical
or engineered material use); USES (Uses)
(epoxy; curable resin compns. containing carbosiloxane
dendrimer- pendant vinyl polymers for sealing semiconductor
devices)
- IT Phenolic resins, uses
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical
or engineered material use); USES (Uses)
(novolak, crosslinked; curable resin
compns. containing carbosiloxane dendrimer- pendant vinyl polymers
for sealing semiconductor devices)
- IT Epoxy resins, uses
Epoxy resins, uses
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical
or engineered material use); USES (Uses)
(phenolic; curable resin compns. containing carbosiloxane
dendrimer- pendant vinyl polymers for sealing semiconductor
devices)
- IT Polyimides, uses

10/554,222-322849-EIC SEARCH

Polyimides, uses
 RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
 (polycyanurate-, bismaleimide-based; curable resin compns. containing carbosiloxane dendrimer-pendant vinyl polymers for sealing semiconductor devices)

IT Polycyanurates
 Polycyanurates
 RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
 (polyimide-, bismaleimide-based; curable resin compns. containing carbosiloxane dendrimer-pendant vinyl polymers for sealing semiconductor devices)

IT Silsesquioxanes
 Silsesquioxanes
 RL: MOA (Modifier or additive use); RCT (Reactant); RACT (Reactant or reagent); USES (Uses)
 (siloxane-, crosslinking agent; curable resin compns. containing carbosiloxane dendrimer-pendant vinyl polymers for sealing semiconductor devices)

IT Polysiloxanes, uses
 Polysiloxanes, uses
 RL: MOA (Modifier or additive use); RCT (Reactant); RACT (Reactant or reagent); USES (Uses)
 (silsesquioxane-, crosslinking agent; curable resin compns. containing carbosiloxane dendrimer-pendant vinyl polymers for sealing semiconductor devices)

IT 100-97-0, Hexamethylenetetramine, uses 180742-77-2, Diphenylsilanediol-methylphenylsilanediol-methylsilanetriol-phenylsilanetriol copolymer
 RL: MOA (Modifier or additive use); RCT (Reactant); RACT (Reactant or reagent); USES (Uses)
 (crosslinking agent; curable resin compns. containing carbosiloxane dendrimer-pendant vinyl polymers for sealing semiconductor devices)

IT 282098-47-9P 282098-49-1P
 RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (curable resin compns. containing carbosiloxane dendrimer-pendant vinyl polymers for sealing semiconductor devices)

L47 ANSWER 10 OF 23 HCAPLUS COPYRIGHT 2010 ACS on STN
 ACCESSION NUMBER: 2000:401499 HCAPLUS Full-text
 DOCUMENT NUMBER: 133:31709
 TITLE: Processing room temperature vulcanizable
 silicone compositions
 INVENTOR(S): Altes, Michael Gene; Jensen, Jary David;
 Lecomte, Jean-Paul H. J. A.; Spodarek, Robert;
 Walkowiak, Jeff Alan
 PATENT ASSIGNEE(S): Dow Corning Corporation, USA
 SOURCE: Eur. Pat. Appl., 14 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1008613	A2	20000614	EP 1999-309736	1999 1203
EP 1008613	A3	20010328		

10/554,222-322849-EIC SEARCH

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE,
 MC, PT, IE, SI, LT, LV, FI, RO
 KR 2000047929 A 20000725 KR 1999-55085 1999
 1206
 <--
 JP 2000169713 A 20000620 JP 1999-351010 1999
 1210
 <--
 PRIORITY APPLN. INFO.: US 1998-209192 A 1998
 1210
 <--

ED Entered GTN: 16 Jun 2000

AB Room temperature vulcanizing (RTV) silicone compns. when exposed to moisture crosslink to form elastomers. The processing of RTV silicones comprises (i) feeding into an axial flow mixing turbine (A) 100 parts polydiorganosiloxanes, (B) 3-15 parts silane, (C) 45-250 parts filler, and (D) 0.01-5 parts catalyst; where the axial flow mixing turbine comprises a casing (1) having a proximal end and a distal end, a shaft positioned along the casing's longitudinal axis having a blade which rotates in a direction perpendicular to the longitudinal axis of the casing, starting material feed openings installed at the proximal end of the casing so that the starting materials flow toward the blade and a discharge opening positioned at the distal end of the casing so as to discharge mixed materials; (ii) mixing (A), (B), (C) and (D) by rotation of the blade at a rotational speed to produce a homogeneous mixture having entrained gasses and volatiles; (iii) introducing the mixture formed by (ii) into a vacuum-equipped degassing apparatus, and (iv) degassing and removing volatiles from the mixture. In an axial flow mixing turbine, OH-terminal polydiorganosiloxane, 50/50 methyltriacetoxysilane/ethyltriacetoxysilane, fumed SiO₂, and Bu₂Sn diacetate were blended and the mixture cured 7 days at 20-25° and 50 ±5% relative humidity to give a material having 100% modulus 0.56 MPa, ultimate elongation 453%, and Shore A hardness 30.

IT 197857-72-0 210548-76-8

RL: PEP (Physical, engineering or chemical process); POF (Polymer in formulation); TEM (Technical or engineered material use); PROC (Process); USES (Uses)

(compounding room temperature vulcanizable silicone compns.)

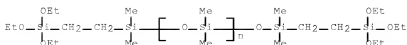
RN 197857-72-0 HCAPLUS

CN Poly[oxy(dimethylsilylene)],
 α-[dimethyl[2-(trimethoxysilyl)ethyl]silyl]-ω-
 [(ethenyldimethylsilyl)oxy]- (CA INDEX NAME)



RN 210548-76-8 HCAPLUS

CN Poly[oxy(dimethylsilylene)],
 α-[dimethyl[2-(triethoxysilyl)ethyl]silyl]-ω-
 [[dimethyl[2-(triethoxysilyl)ethyl]silyl]oxy]- (CA INDEX NAME)



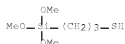
IT 4420-74-0, 3-Mercaptopropyltrimethoxysilane

10/554,222-322849-EIC SEARCH

RL: TEM (Technical or engineered material use); USES (Uses)
(compounding room temperature vulcanizable silicone compns.)

RN 4420-74-0 HCAPLUS

CN 1-Propanethiol, 3-(trimethoxysilyl)- (CA INDEX NAME)



IC ICM C08G077-38

ICS C08L083-04

CC 39-9 (Synthetic Elastomers and Natural Rubber)

IT Turbines

Turbines

(mixers; for processing room temperature vulcanizable silicone compns. adding crosslinker and catalyst in one step and with good filler dispersion)

IT Mixers (processing apparatus)

Mixers (processing apparatus)

(turbines; for processing room temperature vulcanizable silicone compns. adding crosslinker and catalyst in one step and with good filler dispersion)

IT 26403-63-4 31900-57-9D, Dimethylsilanediol homopolymer,

triethoxysilylethylene-terminated 42557-10-8,

Trimethylsilyl-terminated polydimethylsiloxane

197857-72-0 210548-76-8

RL: PEP (Physical, engineering or chemical process); POF (Polymer in formulation); TEM (Technical or engineered material use); PROC (Process); USES (Uses)

(compounding room temperature vulcanizable silicone compns.)

IT 1185-55-3 1760-24-3 4253-34-3, Methyltriacetoxysilane

4420-74-0, 3-Mercaptopropyltrimethoxysilane 17689-77-9,

Ethyltriacetoxysilane

RL: TEM (Technical or engineered material use); USES (Uses)

(compounding room temperature vulcanizable silicone compns.)

OS.CITING REF COUNT: 1

THERE ARE 1 CAPLUS RECORDS THAT CITE

THIS RECORD (1 CITINGS)

REFERENCE COUNT: 5

THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L47 ANSWER 11 OF 23 HCAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 1997:449606 HCAPLUS Full-text

DOCUMENT NUMBER: 127:66968

ORIGINAL REFERENCE NO.: 127:12793a,12796a

TITLE: Cutting-resistant laminated films with good releasability, rear transfer resistance, and good adhesion to silicone layer

INVENTOR(S): Miura, Sadami

PATENT ASSIGNEE(S): Teijin Ltd., Japan

SOURCE: Jpn. Kokai Tokyo Koho, 10 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09123372	A	19970513	JP 1995-278685	

10/554,222-322849-EIC SEARCH

1995

1026

PRIORITY APPLN. INFO.:

JP 1995-278685

1995

1026

ED Entered STN: 19 Jul 1997

AB The laminated films are obtained by coating on a polyester film an aqueous solution containing siloxane compds. and carboxylic group-bearing polymers, followed by drying and drawing. A 3% aqueous release coating solution contained trimethylsilyl-terminated Me alkyl siloxane [alkyl = Me, glycidyloxyallyl, CH₂CH₂CH₂CO₂H, CH₂CH₂CH₂Si(OMe)₃] 71, Terephthalic acid-isophthalic acid-5-potassium sulfoisophthalic acid-trimellitic acid-ethylene glycol-diethylene glycol-neopentyl glycol copolymer 18, ethylene oxide-propylene oxide block 11 parts copolymer.

IT 191538-70-2D, trimethylsilyl-terminated
 RL: PRP (Properties); TEM (Technical or engineered material use);
 USES (Uses)
 (cutting-resistant laminated films with
 good releasability, rear transfer resistance, and good adhesion
 to silicone layer)

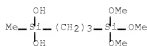
RN 191538-70-2 HCAPLUS

CN Butanoic acid, 4-(dihydroxymethylsilyl)-, polymer with
 dimethylsilanediol, methyl[3-(oxiranymethoxy)propyl]silanediol
 and methyl[3-(trimethoxysilyl)propyl]silanediol (9CI) (CA INDEX
 NAME)

CM 1

CRN 189232-88-0

CMF C7 H20 O5 Si2



CM 2

CRN 133316-68-4

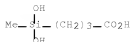
CMF C7 H16 O4 Si



CM 3

CRN 75169-35-6

CMF C5 H12 O4 Si



CM 4

CRN 1066-42-8

CMF C2 H8 O2 Si



- IC ICM B32B027-36
ICS B32B007-06; B32B009-00; B32B023-00; B32B027-00; B32B027-08;
B32B027-30; B32B027-40; C08J007-04
- CC 38-3 (Plastics Fabrication and Uses)
Section cross-reference(s): 42
- ST cutting resistant laminated film
releasability; siloxane polyester release coating
laminates; ethylene oxide block copolymer release
coating
- IT Release coatings
(cutting-resistant laminated films with
good releasability, rear transfer resistance, and good adhesion
to silicone layer)
- IT Laminated plastics, uses
RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)
(cutting-resistant laminated films with
good releasability, rear transfer resistance, and good adhesion
to silicone layer)
- IT Polyesters, uses
RL: PRP (Properties); TEM (Technical or engineered material use);
USES (Uses)
(cutting-resistant laminated films with
good releasability, rear transfer resistance, and good adhesion
to silicone layer)
- IT Parting materials
(siloxane-based; cutting-resistant laminated
films with good releasability, rear transfer
resistance, and good adhesion to silicone layer)
- IT 7631-86-9, Silica, uses
RL: MOA (Modifier or additive use); USES (Uses)
(colloidal; cutting-resistant laminated films
with good releasability, rear transfer resistance, and good
adhesion to silicone layer)
- IT 2530-83-8 25038-59-9, PET polyester, uses 189232-82-4
191538-68-8 191538-69-9 191538-70-2D,
trimethylsilyl-terminated
RL: PRP (Properties); TEM (Technical or engineered material use);
USES (Uses)
(cutting-resistant laminated films with
good releasability, rear transfer resistance, and good adhesion
to silicone layer)
- IT 191538-67-7
RL: PRP (Properties); TEM (Technical or engineered material use);
USES (Uses)
(release coating; cutting-resistant laminated

10/554,222-322849-EIC SEARCH

films with good releasability, rear transfer
 resistance, and good adhesion to silicone layer)
 OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE
 THIS RECORD (1 CITINGS)

L47 ANSWER 12 OF 23 HCAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 1997:273658 HCAPLUS Full-text

DOCUMENT NUMBER: 126:251962

ORIGINAL REFERENCE NO.: 126:48709a,48712a

TITLE: Epoxy resin compositions and sealed
 semiconductor devices with good moisture and
 solder-heat resistances and moldability

INVENTOR(S): Sato, Tatsuo

PATENT ASSIGNEE(S): Toshiba Chem Prod, Japan

SOURCE: Jpn. Kokai Tokyo Koho, 7 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

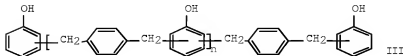
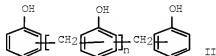
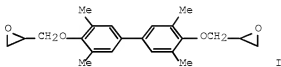
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09040749	A	19970210	JP 1995-209257	1995 0725

PRIORITY APPLN. INFO.:	<--	JP 1995-209257	1995 0725
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ED Entered STN: 28 Apr 1997

GI



AB Title compns. comprise (A) biphenyl-type epoxy resin I, (B) phenolic resins, (C) silane coupling agents of $\text{Me}_3\text{SiO}(\text{SiMe}_2\text{O})_l(\text{SiMeXO})_m(\text{SiMeYO})_n(\text{SiMeZO})_o\text{SiMe}_3$ [X = alkoxysilyl-containing group; Y = epoxy-, CO_2H -, or carbinol-containing reactive organic functional group; Z = polyether, C_2 alkyl, aralkyl group (units for enhancing compatibility with organic compds.)]; m, p ≥ 0 ; n, o ≥ 1], (D) 25-90% (based on total composition) fused SiO_2 powder (maximum particle size $\leq 100 \mu\text{m}$), and (E) curing accelerators. Sealed

10/554,222-322849-EIC SEARCH

semiconductor devices are obtained by sealing semiconductor chips with the above compns. Thus, a semiconductor chip was treated with a composition containing I 6.2, tetrabromobisphenol A-based epoxy resin 1.5, phenolic resin II (n ≥ 0) 1.5, phenolic resin III (n ≥ 1) 3.5, Ph3P 0.2, carnauba wax 0.4, carbon black 0.3, and Sb2O3 2.0% and cured to give a sealed semiconductor device showing good moisture and solder-heat resistances.

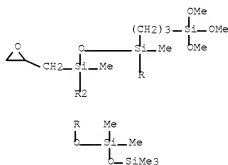
IT 183059-20-3 188652-12-2

RL: MOA (Modifier or additive use); USES (Uses)
(coupling agent; epoxy resin compns. and sealed semiconductor devices with good moisture and solder-heat resistances and moldability)

RN 183059-20-3 HCAPLUS

CN Hexasiloxane, 1,1,1,3,3,5,7,9,9,11,11,11-dodecamethyl-5-(oxiranylmethyl)-7-[3-(trimethoxysilyl)propyl]- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 2-A



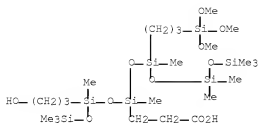
RN 188652-12-2 HCAPLUS

CN Oxirane, methyl-, polymer with oxirane,
3-[3-(2-carboxyethyl)-1,3,5,7,9,9,9-octamethyl-5-[3-(trimethoxysilyl)propyl]-1-
[(trimethylsilyl)oxy]pentasiloxanyl]propyl methyl ether (9CI) (CA INDEX NAME)

CM 1

CRN 183059-21-4

CMF C23 H60 O11 Si7



CM 2

CRN 67-56-1

CMF C H4 O

H3C-OH

CM 3

CRN 9003-11-6

CMF (C3 H6 O , C2 H4 O)x

CCI PMS

CM 4

CRN 75-56-9

CMF C3 H6 O



CM 5

CRN 75-21-8

CMF C2 H4 O



IC ICM C08G059-24

ICS C08G059-62; C08L063-00; H01L023-29; H01L023-31

CC 37-6 (Plastics Manufacture and Processing)

Section cross-reference(s): 76

IT 183059-20-3 188652-12-2

RL: MOA (Modifier or additive use); USES (Uses)

(coupling agent; epoxy resin compns. and sealed semiconductor devices with good moisture and solder-heat resistances and moldability)

10/554,222-322849-EIC SEARCH

L47 ANSWER 13 OF 23 HCAPLUS COPYRIGHT 2010 ACS ON STN
 ACCESSION NUMBER: 1997:223968 HCAPLUS Full-text
 DOCUMENT NUMBER: 126:212250
 ORIGINAL REFERENCE NO.: 126:41054h,41055a
 TITLE: Preparation of silicones having leaving groups
 as coating materials
 INVENTOR(S): Takahashi, Eiji; Iyanagi, Koichi
 PATENT ASSIGNEE(S): Pola Kasei Kogyo Kk, Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09040680	A	19970210	JP 1995-210099	1995 0726

PRIORITY APPLN. INFO.: JP 1995-210099
 1995
0726

OTHER SOURCE(S): MARPAT 126:212250

ED Entered STN: 07 Apr 1997

AB Fluorine-containing silicones R3R2R1Si-Q-SiR4R5R6 (I; Q = bivalent hydrocarbon group optionally having C or H atoms substituted by other groups; R1 - R6 = hydrocarbon or leaving group optionally containing F atoms; provided that at least one of R1, R2, and R3 and at least one of R3, R4, and R5 are leaving groups and the mol. contains at least one F atom) are prepared. A composition containing 1 or ≥2 silicones I for coating or polymer crosslinking is claimed. A method for crosslinking a polymer by reacting 1 or ≥2 silicones I with a polymer is claimed. These silicones form a flexible and strong coating composition with other monomers and are used for surface-modification of metals, glass, woods, powder, polymers (e.g. polyvinyl alc., cellulose, or polyacrylic acid), plastics, and fibers. Thus, 150 g tetramethoxysilane and 7 g Mg were refluxed in 300 mL THF, and 50 g 1,8-diiodo-3,3,4,4,5,5,6,6-octafluorooctane was slowly added dropwise, and the resulting mixture was refluxed for 24 h to give 37 g methoxysilane derivative (MeO)3SiCH2CH2(CF2)4CH2CH2Si(OMe)3 (II). A 10% solution of II in THF was sprayed on a glass surface and heated at 130° under vacuum for 24 h to give a surface-treated glass which showed excellent water and oil repellency.

IT 188037-25-4P

RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
 (preparation of silicone having leaving groups as coating materials and crosslinking agents)

RN 188037-25-4 HCAPLUS

CN 2,13-Dioxo-3,12-disilatetradecane,
 6,6,7,7,8,8,9,9-octafluoro-3,12-dimethoxy-3,12-diphenyl- (CA
 INDEX NAME)



IT 188037-26-5P 188037-28-7P

188037-29-8P

RL: IMF (Industrial manufacture); SPN (Synthetic preparation); TEM

10/554,222-322849-EIC SEARCH

(Technical or engineered material use); PREP (Preparation); USES (Uses)

(preparation of silicone having leaving groups as coating materials and crosslinking agents)

RN 188037-26-5 HCAPLUS

CN 2,13-Dioxo-3,12-disilatetradecane,
6,6,7,7,8,8,9,9-octafluoro-3,12-dimethoxy-3,12-dimethyl- (CA INDEX NAME)



RN 188037-28-7 HCAPLUS

CN 2,13-Dioxo-4,13-disilahexadecane,
6,6,7,7,8,8,9,9-octafluoro-3,3,12,12-tetramethyl- (CA INDEX NAME)



RN 188037-29-8 HCAPLUS

CN 3,14-Dioxo-4,13-disilahexadecane,
4,4,13,13-tetraethyl-7,7,8,8,9,9,10,10-octafluoro- (CA INDEX NAME)



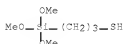
IT 4420-74-0

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of silicone having leaving groups as coating materials and crosslinking agents)

RN 4420-74-0 HCAPLUS

CN 1-Propanethiol, 3-(trimethoxysilyl)- (CA INDEX NAME)



IC ICM C07F007-18

ICS C07F007-18

CC 29-6 (Organometallic and Organometalloidal Compounds)

Section cross-reference(s): 37, 42

ST silicone contg leaving group prepn; coating material
methoxysilane; crosslinking agent silicone

IT Polysiloxanes, preparation

Polysiloxanes, preparation

10/554,222-322849-EIC SEARCH

- RL: IMF (Industrial manufacture); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(fluorine-containing; preparation of silicone having leaving groups as coating materials and crosslinking agents)
- IT Fluoropolymers, preparation
Fluoropolymers, preparation
RL: IMF (Industrial manufacture); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(polysiloxane-; preparation of silicone having leaving groups as coating materials and crosslinking agents)
- IT Coating materials
Crosslinking agents
Oilproofing agents
Water-resistant materials
(preparation of silicone having leaving groups as coating materials and crosslinking agents)
- IT Silanes
Siloxanes (nonpolymeric)
RL: IMF (Industrial manufacture); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(preparation of silicone having leaving groups as coating materials and crosslinking agents)
- IT 188037-24-3P 188037-25-4P
RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(preparation of silicone having leaving groups as coating materials and crosslinking agents)
- IT 188037-26-5P 188037-28-7P 188037-31-2P 188037-32-3P
188037-29-8P 188037-30-1P 188037-35-6P 188037-36-7P
188037-33-4P 188037-34-5P 188037-37-8P 188037-38-9P
188037-37-8P 188037-38-9P 188037-39-0P 188037-40-3P
188037-41-4P
RL: IMF (Industrial manufacture); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(preparation of silicone having leaving groups as coating materials and crosslinking agents)
- IT 100-58-3 106-37-6, 1,4-Dibromobenzene 107-11-9,
2-Propen-1-amine 335-48-8, 1,4-Dibromooctafluorobutane
355-74-8, 1,6-Dihydroxy-2,2,3,3,4,4,5,5-octafluorohexane
356-15-0, Tetrafluorosuccinoyl chloride 423-39-2, Perfluorobutyl iodide 460-37-7, 1-Iodo-3,3,3-trifluoropropane 681-84-5,
Tetramethoxysilane 754-96-1 812-58-8,
1,8-Dibromoperfluorooctane 919-30-2,
3-Aminopropyltriethoxysilane 925-90-6, Ethylmagnesium bromide 1112-39-6 1185-55-3 2681-00-7,
1,8-Diiodo-3,3,4,4,5,5,6,6-octafluorooctane 2996-92-1,
Phenyltrimethoxysilane 4420-74-0 5021-93-2,
Diethoxydiethylsilane 7657-09-2,
1,4-Dibromo-2-trifluoromethylbenzene 24801-88-5,
3-(Triethoxysilyl)propyl isocyanate 153487-60-6,
1-(Trimethoxysilyl)-3-[2-(trimethoxysilyl)ethylthio]propane
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of silicone having leaving groups as coating materials and crosslinking agents)
- IT 135778-06-2P, 1,4-Bis(dimethoxymethylsilyl)benzene 188037-42-5P,
1-(Dimethoxyethylsilyl)-3-[2-(dimethoxyethylsilyl)ethylthio]propane 188037-43-6P,
1-(Dimethoxyphenylsilyl)-3-[2-(dimethoxyphenylsilyl)ethylthio]propane 188037-44-7P,
Perfluorobutylmagnesium iodide
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

10/554,222-322849-EIC SEARCH

(preparation of silicone having leaving groups as coating materials and crosslinking agents)

OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD (5 CITINGS)

L47 ANSWER 14 OF 23 HCAPLUS COPYRIGHT 2010 ACS ON STN

ACCESSION NUMBER: 1996:675605 HCAPLUS Full-text

DOCUMENT NUMBER: 125:302858

ORIGINAL REFERENCE NO.: 125:56663a,56666a

TITLE: Epoxy resin compositions with good moisture resistance, solder-heat resistance, and moldability and sealed semiconductor devices

INVENTOR(S): Sato, Tatsuo

PATENT ASSIGNEE(S): Toshiba Chem Prod, Japan

SOURCE: Jpn. Kokai Tokyo Koho, 7 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 08217850	A	19960827	JP 1995-51698	1995 0216

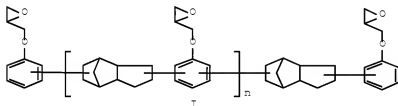
PRIORITY APPLN. INFO.: <-- JP 1995-51698

1995
0216

ED Entered STN: 15 Nov 1996

GI

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AB Semiconductor chips are sealed with epoxy resin compns. containing dicyclopentadiene-based epoxy resins I (n = 0, 1), phenolic resins, coupling agents Me3SiO[Me2SiO]l[MeXSiO]m[MeYSiO]n[Me2SiO]oSiMe3 (II; X = alkoxyisilyl-terminated alkyl; Y = epoxy, CO2H, or OH-terminated alkyl; Z = polyether unit, alkyl, aralkyl; l, m, n, p ≥ 1), 25-90% molten SiO2 powders with maximum particle size ≤100 μm, and curing accelerators. Thus, a blend of I 6.2, tetrabromobisphenol A-based epoxy resin 1.5, OHC6H4[CH2C6H3OH]nCH2C6H4OH 1.5, OHC6H4[CH2C6H4CH2C6H3OH]nCH2C6H4CH2C6H4OH 3.5, PPh3 0.2, carnauba waxes 0.4, carbon black 0.3, Sb2O3 2.0% was mixed with 84% molten SiO2 powder (maximum particle size 100 μm) treated with 0.4% II [X = (CH2)3Si(OMe)3, Y = glycidyl, Z = Me] to give a molding material showing spiral flow 80 cm, flow viscosity 220 P, bending strength 17.5 kg/mm2, thermal expansion coefficient 0.9 + 10-5/°, water absorption 1600 ppm, and good solder heat resistance.

IT 183059-20-3 183184-16-9

RL: MOA (Modifier or additive use); USES (Uses)
(coupling agents; epoxy resin compns. with good moisture

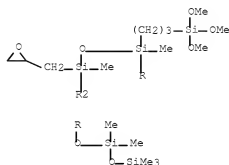
10/554,222-322849-EIC SEARCH

resistance, solder-heat resistance, and moldability for sealing semiconductor devices)

RN 183059-20-3 HCAPLUS

CN Hexasiloxane, 1,1,1,3,3,5,7,9,9,11,11,11-dodecamethyl-5-(oxiranylmethyl)-7-[3-(trimethoxysilyl)propyl]- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 2-A



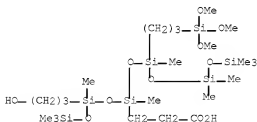
RN 183184-16-9 HCAPLUS

CN Oxirane, methyl-, polymer with oxirane, mono[3-[3-(2-carboxyethyl)-1,3,5,7,7,9,9,9-octamethyl-5-[3-(trimethoxysilyl)propyl]-1-[(trimethylsilyl)oxy]pentasiloxanyl]propyl] ether (9CI) (CA INDEX NAME)

CM 1

CRN 183059-21-4

CMF C23 H60 O11 Si7



CM 2

CRN 9003-11-6

CMF (C3 H6 O . C2 H4 O)x

10/554,222-322849-EIC SEARCH

CCI PMS

CM 3

CRN 75-56-9

CMF C3 H6 O



CM 4

CRN 75-21-8

CMF C2 H4 O



IC ICM C08G059-20
 ICS C08G059-62; C08L063-00; H01L023-29; H01L023-31
 CC 38-3 (Plastics Fabrication and Uses)
 Section cross-reference(s): 76
 IT 183059-20-3 183184-16-9
 RL: MOA (Modifier or additive use); USES (Uses)
 (coupling agents; epoxy resin compns. with good moisture
 resistance, solder-heat resistance, and moldability for sealing
 semiconductor devices)

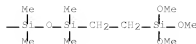
L47 ANSWER 15 OF 23 HCAPLUS COPYRIGHT 2010 ACS on STN
 ACCESSION NUMBER: 1996:142171 HCAPLUS Full-text
 DOCUMENT NUMBER: 124:178364
 ORIGINAL REFERENCE NO.: 124:33065a,33068a
 TITLE: Silicone pressure-sensitive adhesive
 compositions
 INVENTOR(S): Cifuentes, Martin Eric; Strong, Michael
 Raymond; Vanwert, Bernard
 PATENT ASSIGNEE(S): Dow Corning Corp., USA
 SOURCE: Eur. Pat. Appl., 12 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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EP 688846	A2	19951227	EP 1995-304112	1995 0614
			<--	
EP 688846	A3	19961030		
EP 688846	B1	20021023		
R: DE, FR, GB, NL				
US 5561203	A	19961001	US 1995-479202	1995 0413
			<--	

CA 2152131	A1	19951221	CA 1995-2152131	1995 0619
JP 08048963	A	19960220	JP 1995-153347	1995 0620
RITY APPLN. INFO.:			US 1994-262792	A 1994 0620

$$\text{MeO}-\underset{\text{OMe}}{\overset{\text{OMe}}{\text{Si}}}-(\text{CH}_2)_3-\text{SH}$$
$$\text{MeO}-\underset{\text{OMe}}{\overset{\text{OMe}}{\text{Si}}}-\text{CH}_2-\text{CH}_2-\underset{\text{Me}}{\overset{\text{Me}}{\text{Si}}}-\left[\underset{\text{Me}}{\overset{\text{Me}}{\text{Si}}}-\text{O}-\underset{\text{Me}}{\overset{\text{Me}}{\text{Si}}}\right]_n-\text{O}-\underset{\text{Me}}{\overset{\text{Me}}{\text{Si}}}-\text{CH}_2-\text{CH}_2-\underset{\text{OMe}}{\overset{\text{OMe}}{\text{Si}}}-\text{OMe}$$
$$\text{MeO}-\underset{\text{OMe}}{\overset{\text{OMe}}{\text{Si}}}-\text{CH}_2-\text{CH}_2-\underset{\text{Me}}{\overset{\text{Me}}{\text{Si}}}-\text{O}-\underset{\text{Me}}{\overset{\text{Me}}{\text{Si}}}-\text{CH}_2-\text{CH}_2-\text{O}-\left[\underset{\text{Me}}{\overset{\text{Me}}{\text{Si}}}-\text{O}\right]_n-\text{CH}_2-\text{CH}_2-$$

PAGE 1-B



IC ICM C09J183-04
 CC 38-3 (Plastics Fabrication and Uses)
 IT 78-10-4, Tetraethoxysilane 681-84-5 919-30-2,
 3-Aminopropyltriethoxysilane 1067-25-0, Propyltrimethoxysilane
 1185-55-3, Methyltrimethoxysilane 1760-24-3 2031-67-6
 2530-83-8 2530-85-0 2996-92-1 4420-74-0
 5314-55-6, Ethyltrimethoxysilane 18395-30-7,
 Isobutyltrimethoxysilane 22984-54-9
 RL: MOA (Modifier or additive use); RCT (Reactant); RACT (Reactant
 or reagent); USES (Uses)
 (siloxane pressure-sensitive adhesives with improved adhesive
 strength)
 IT 9016-00-6D, Polydimethylsiloxane, trimethoxysilyl-terminated
 31900-57-9D, Polydimethylsiloxane, trimethoxysilyl-terminated
 160480-15-9 174142-15-5
 RL: TEM (Technical or engineered material use); USES (Uses)
 (siloxane pressure-sensitive adhesives with improved adhesive
 strength)
 OS.CITING REF COUNT: 5 THERE ARE 5 CAPLUS RECORDS THAT CITE
 THIS RECORD (5 CITINGS)
 L47 ANSWER 16 OF 23 HCAPLUS COPYRIGHT 2010 ACS ON STN
 ACCESSION NUMBER: 1995:888059 HCAPLUS Full-text
 DOCUMENT NUMBER: 123:296245
 ORIGINAL REFERENCE NO.: 123:52893a,52896a
 TITLE: Cosmetics containing reactive
 organopolysiloxane-coated inorganic
 powders
 INVENTOR(S): Noda, Isao; Shoji, Hiroaki
 PATENT ASSIGNEE(S): Nippon Unicar Co Ltd, Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 12 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 07206637	A	19950808	JP 1994-16999	1994 0117
			<--	
PRIORITY APPLN. INFO.:			JP 1994-16999	1994 0117
			<--	

ED Entered STN: 01 Nov 1995
 AB Cosmetics contain inorg. powders, which are surface-coated with reactive
 organopolysiloxanes to impart skin compatibility, water-resistance, skin softness, and
 product stability and durability. Thus, an oil/water-type cream contained
 organopolysiloxane-coated inorg. powders 10, kaolin 12, titania 5, red iron oxide 1.5,

10/554,222-322849-EIC SEARCH

yellow iron oxide 2.0, black iron oxide 0.5, liquid paraffin 15, iso-Pr myristate 10, lanolin alc. 3, ozokerite 8, preservatives, perfumes, and talc to 100 weight%.

IT 169554-00-1D, trimethylsilyl terminated
169554-02-3D, trimethylsilyl terminated
169554-04-5
RL: BUU (Biological use, unclassified); BIOL (Biological study);
USES (Uses)
(cosmetics containing reactive organopolysiloxane-coated inorg. powders)

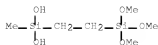
RN 169554-00-1 HCAPLUS

CM Silanediol, dimethyl-, polymer with
(3-hydroxypropyl)methylsilanediol, methyloxirane,
methylsilanediol, methyl[2-(trimethoxysilyl)ethyl]silanediol and
oxirane, block, graft (9CI) (CA INDEX NAME)

CM 1

CRN 161174-84-1

CMF C6 H18 O5 Si2



CM 2

CRN 43641-90-3

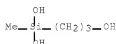
CMF C H6 O2 Si



CM 3

CRN 18165-96-3

CMF C4 H12 O3 Si



CM 4

CRN 1066-42-8

CMF C2 H8 O2 Si



CM 5

CRN 75-56-9

CMF C3 H6 O



CM 6

CRN 75-21-8

CMF C2 H4 O



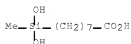
RN 169554-02-3 HCAPLUS

CN Octanoic acid, 8-(dihydroxymethylsilyl)-, polymer with dimethylsilanediol, methyloxirane, methylsilanediol and methyl[2-(trimethoxysilyl)ethyl]silanediol, block, graft (9CI)
(CA INDEX NAME)

CM 1

CRN 169554-01-2

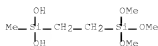
CMF C9 H20 O4 Si



CM 2

CRN 161174-84-1

CMF C6 H18 O5 Si2



CM 3

CRN 43641-90-3

CMF C H6 O2 Si



CM 4

CRN 1066-42-8

CMF C2 H8 O2 Si



CM 5

CRN 75-56-9

CMF C3 H6 O



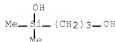
RN 169554-04-5 HCAPLUS

CN Silanediol, dimethyl-, polymer with
 (3-hydroxypropyl)dimethylsilanol, methyloxirane,
 methyl[3-(oxiranylmethoxy)propyl]silanediol,
 methyl[2-(trimethoxysilyl)ethyl]silanediol and oxirane (9CI) (CA
 INDEX NAME)

CM 1

CRN 169554-03-4

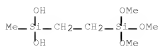
CMF C5 H14 O2 Si



CM 2

CRN 161174-84-1

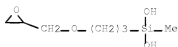
CMF C6 H18 O5 Si2



CM 3

CRM 133316-68-4

CMF C7 H16 O4 Si



CM 4

CRM 1066-42-8

CMF C2 H8 O2 Si



CM 5

CRM 75-56-9

CMF C3 H6 O



CM 6

CRM 75-21-8

CMF C2 H4 O



IT 169553-99-5D, trimethylsilyl terminated
 RL: BUU (Biological use, unclassified); BIOL (Biological study);

10/554,222-322849-EIC SEARCH

USES (Uses)

(reactive, inorg. powders coating with; cosmetics
containing reactive organopolysiloxane-coated inorg.
powders)

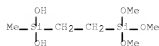
RN 169553-99-5 HCAPLUS

CN Silanediol, dimethyl-, polymer with methyloxirane,
methyl[3-(oxiranylmethoxy)propyl]silanediol, methylsilanediol,
methyl[2-(trimethoxysilyl)ethyl]silanediol and oxirane, block,
graft (9CI) (CA INDEX NAME)

CM 1

CRN 161174-84-1

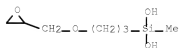
CMF C6 H18 O5 Si2



CM 2

CRN 133316-68-4

CMF C7 H16 O4 Si



CM 3

CRN 43641-90-3

CMF C H6 O2 Si



CM 4

CRN 1066-42-8

CMF C2 H8 O2 Si



CM 5

CRN 75-56-9

CMF C3 H6 O



CM 6

CRN 75-21-8

CMF C2 H4 O



IC ICM A61K007-02
ICS C09C003-12
CC 62-4 (Essential Oils and Cosmetics)
ST cosmetic reactive organopolysiloxane surface coating powder
IT Cosmetics
Hair preparations
(cosmetics containing reactive organopolysiloxane-coated inorg. powders)
IT Siloxanes and Silicones, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study);
USES (Uses)
(reactive, inorg. powders coating with; cosmetics containing reactive organopolysiloxane-coated inorg. powders)
IT Cosmetics
(creams, cosmetics containing reactive organopolysiloxane-coated inorg. powders)
IT Cosmetics
(powders, reactive organopolysiloxane-coated; cosmetics containing reactive organopolysiloxane-coated inorg. powders)
IT 169554-00-1D, trimethylsilyl terminated
169554-02-3D, trimethylsilyl terminated
169554-04-5
RL: BUU (Biological use, unclassified); BIOL (Biological study);
USES (Uses)
(cosmetics containing reactive organopolysiloxane-coated inorg. powders)
IT 169553-99-5D, trimethylsilyl terminated
RL: BUU (Biological use, unclassified); BIOL (Biological study);
USES (Uses)
(reactive, inorg. powders coating with; cosmetics containing reactive organopolysiloxane-coated inorg. powders)

L47 ANSWER 17 OF 23 HCAPLUS COPYRIGHT 2010 ACS ON STN
ACCESSION NUMBER: 1995:858537 HCAPLUS Full-text
DOCUMENT NUMBER: 123:257935
ORIGINAL REFERENCE NO.: 123:46141a,46144a
TITLE: Thermoplastic graft siloxanes with good

10/554,222-322849-EIC SEARCH

slidability???, abrasion resistance,
 weatherability, impact strength, fatigue
 resistance and chemical resistance
 Higaki, Keigo; Sakurai, Kouichi; Kawahashi,
 Nobuo; Kamoshida, Yoichi; Matsumoto, Makoto;
 Shinohara, Kazuto; Kanuma, Kouji
 JAPAN SYNTHETIC RUBBER CO., LTD., JAPAN;
 TOSHIBA SILICONE CO., LTD.
 Eur. Pat. Appl., 15 pp.
 CODEN: EPXXDW
 Patent
 English
 1
 Patent Information:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 653447	A1	19950517	EP 1994-117532	1994 1107
EP 653447	B1	20010606	<--	
R: DE, GB, NL				
JP 07138331	A	19950530	JP 1993-307064	1993 1115
JP 3357438	B2	20021216	<--	
US 5457167	A	19951010	US 1994-340391	1994 1115
PRIORITY APPLN. INFO.:			JP 1993-307064	A 1993 1115

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT
 ED Entered STN: 17 Oct 1995

AB The thermoplastic resin comprises a graft copolymer obtained by graft-polymerizing ≥ 1 vinyl monomer onto a modified siloxane obtained by polymerizing 80 to 99.8% of an organosiloxane (I) $R_nSiO(4-n)/2$ (R1 is an optionally substituted hydrocarbon group), 0.1 to 10% of ≥ 1 graft crosslinking agent (II) containing an alkoxyisilyl group, selected from the group consisting of a vinyl-type graft crosslinking agent, a mercapto-type graft crosslinking agent, an acryloyl-type crosslinking agent and a vinylphenyl-type crosslinking agent, and 0.1 to 10% of a compound (III) having two alkoxyisilyl groups, provided that I + II + III = 100%. Octamethylcyclotetrasiloxane was copolymerized with 2-(p-vinylphenyl)ethylmethyldimethoxysilane and 1-[1-(dimethoxy)(methyl)silyl]ethyl-4-[2-(dimethoxy)(methyl)silyl]ethylbenzene, then grafted with styrene and acrylonitrile to give a graft siloxane.

IT 169033-20-9P 169033-21-0P
 RL: POF (Polymer in formulation); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
 (thermoplastic graft siloxanes with good slidability, abrasion resistance, weatherability, impact strength, fatigue resistance and chemical resistance)

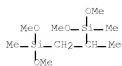
RN 169033-20-9 HCAPLUS

CN Cyclotetrasiloxane, octamethyl-, polymer with 3,7-dimethoxy-3,7-dimethyl-2,8-dioxo-3,7-disilanonane, 3,6-dimethoxy-3,4,6-trimethyl-2,7-dioxo-3,6-disilaoctane, ethenylbenzene and ethenyldimethoxymethylsilane (9CI) (CA INDEX NAME)

CM 1

CRN 169033-19-6

CMF C9 H24 O4 Si2



CM 2

CRN 168471-61-2

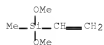
CMF C9 H24 O4 Si2



CM 3

CRN 16753-62-1

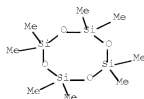
CMF C5 H12 O2 Si



CM 4

CRN 556-67-2

CMF C8 H24 O4 Si4



CM 5

CRN 100-42-5

CMF C8 H8



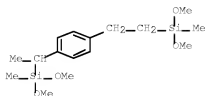
RN 169033-21-0 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with
 [1-[4-[2-(dimethoxymethylsilyl)ethyl]phenyl]ethyl]dimethoxymethyls
 ilane, 3-(dimethoxymethylsilyl)-1-propanethiol,
 octamethylcyclotetrasiloxane and
 (1,4-phenylenedi-2,1-ethanediyl)bis[dimethoxymethylsilane] (9CI)
 (CA INDEX NAME)

CM 1

CRM 169033-17-4

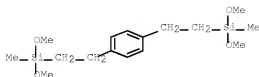
CMF C16 H30 O4 Si2



CM 2

CRM 169033-16-3

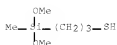
CMF C16 H30 O4 Si2



CM 3

CRM 31001-77-1

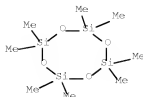
CMF C6 H16 O2 S Si



CM 4

10/554,222-322849-EIC SEARCH

CRN 556-67-2
CMF C8 H24 O4 Si4



CM 5

CRN 80-62-6
CMF C5 H8 O2



IC ICM C08F283-12
ICS C08G077-50; C08G077-52
CC 35-8 (Chemistry of Synthetic High Polymers)
IT 169033-18-5P 169033-20-9P 169033-21-0P
169033-22-1P 169033-23-2P 169033-24-3P
RI: POF (Polymer in formulation); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
(thermoplastic graft siloxanes with good slidability, abrasion resistance, weatherability, impact strength, fatigue resistance and chemical resistance)
OS.CITING REF COUNT: 4 THERE ARE 4 CAPLUS RECORDS THAT CITE THIS RECORD (6 CITINGS)

L47 ANSWER 18 OF 23 HCAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 1988:57147 HCAPLUS Full-text
DOCUMENT NUMBER: 108:57147
ORIGINAL REFERENCE NO.: 108:9553a,9556a
TITLE: Coupling agent compositions
INVENTOR(S): Plueddemann, Edwin P.
PATENT ASSIGNEE(S): Dow Corning Corp., USA
SOURCE: U.S., 10 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4689085	A	19870825	US 1986-880528	1986 0630
CA 1288544	C	19910903	CA 1987-536334	1987

10/554,222-322849-EIC SEARCH

0504

EP 255227 A2 19880203 EP 1987-305622

1987

0624

EP 255227 A3 19890712

R: DE, FR, GB

JP 01006036 A 19890110 JP 1987-161409

1987

0630

US 34675 E 19940726 US 1992-876990

1992

0501

PRIORITY APPLN. INFO.: US 1986-880528 A

1986

0630

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

ED Entered STIN: 20 Feb 1988

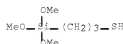
AB The effectiveness of organic silane coupling agents in plastic composites and coatings is improved by using the silanes $Z[Si(OR)_3]_2$ (R = C1-8 alkyl, Z = divalent organic radical) as crosslinking agents for the couplers. Thus, a mixture of quartz 50, polyester (Resyn 5500) 50, Bz2O2 0.5, and 40% MeOH solution of 1:10 (MeO) $3SiCH_2CH_2Si(OMe)_3$ (I)-3-(trimethoxysilyl)propyl methacrylate 2.5 parts was cast to a 7-mm rod with flexural strengths 23,100 and 18,200 psi after 0 and 24 h in boiling water, resp.; vs. 18,800 and 14,700, resp., without I.

IT 4420-74-0, 3-Mercaptopropyltrimethoxysilane
14814-09-6, 3-Mercaptopropyltriethoxysilane
31001-77-1, 3-Mercaptopropylmethyldimethoxysilane

RL: USES (Uses)
(coupling agents, for plastic moldings, crosslinking of)

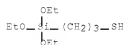
RN 4420-74-0 HCAPLUS

CN 1-Propanethiol, 3-(trimethoxysilyl)- (CA INDEX NAME)



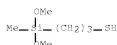
RN 14814-09-6 HCAPLUS

CN 1-Propanethiol, 3-(triethoxysilyl)- (CA INDEX NAME)

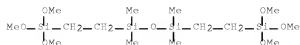


RN 31001-77-1 HCAPLUS

CN 1-Propanethiol, 3-(dimethoxymethylsilyl)- (CA INDEX NAME)



IT 108427-71-0
 RL: MOA (Modifier or additive use); USES (Uses)
 (crosslinking agents, for silane derivative couplers for plastics)
 RN 108427-71-0 HCAPLUS
 CN 2,7,12-Trioxa-3,6,8,11-tetrasilatridecane,
 3,3,11,11-tetramethoxy-6,6,8,8-tetramethyl- (CA INDEX NAME)



IC ICM C09K003-00
 ICS C07F007-04; C07F007-08
 INCL 106287140
 CC 37-6 (Plastics Manufacture and Processing)
 Section cross-reference(s): 42
 ST silane deriv coupler crosslinking; polyester molding
 coupler crosslinking; methacrylate silylalkyl coupler
 crosslinking; primer silane deriv crosslinking
 IT Crosslinking agents
 (bis(alkoxysilyl) compds., for silane derivative coupling agents)
 IT Epoxy resins, uses and miscellaneous
 Polyesters, uses and miscellaneous
 RL: USES (Uses)
 (reinforced, silane derivative couplers for, crosslinking
 of)
 IT Coupling agents
 (silane derivs., for plastics, crosslinking agents
 for)
 IT Rubber, butadiene-styrene, uses and miscellaneous
 RL: TEM (Technical or engineered material use); USES (Uses)
 (block, coatings, Kraton 1102, silane derivative couplers
 for, crosslinking of)
 IT Coating materials
 (primers, silane derivs., crosslinking agents for)
 IT 24937-78-8, Ethylene-vinyl acetate copolymer
 RL: TEM (Technical or engineered material use); USES (Uses)
 (coatings, EMA 15295, silane derivative couplers for,
 crosslinking of)
 IT 25085-99-8, DER 667 75831-37-7, CXA 2022
 RL: TEM (Technical or engineered material use); USES (Uses)
 (coatings, silane derivative couplers for,
 crosslinking of)
 IT 754-05-2, Vinyltrimethylsilane 919-30-2,
 3-Aminopropyltriethoxysilane 1067-53-4,
 Tris(2-methoxyethoxy)vinylsilane 1760-24-3 2530-83-8,
 3-Glycidyloxypropyltrimethoxysilane 2530-85-0 2530-87-2,
 3-Chloropropyltrimethoxysilane 3069-30-5,
 4-Aminobutyltriethoxysilane 3388-04-3,
 2-(3,4-Epoxy cyclohexyl)ethyltrimethoxysilane 4130-08-9,
 Vinyltriacetoxysilane 4420-74-0,
 3-Mercaptopropyltrimethoxysilane 5089-70-3,
 3-Chloropropyltriethoxysilane 13822-56-5,
 3-Aminopropyltrimethoxysilane 14814-09-6,
 3-Mercaptopropyltriethoxysilane 15188-09-7,
 Vinyltris(tert-butylperoxy)silane 21807-63-6 24801-87-4
 31061-77-1, 3-Mercaptopropylmethyldimethoxysilane
 31681-13-7, 2-Methacryloyloxyethyl dimethyl(3-

10/554,222-322849-EIC SEARCH

trimethoxysilylpropyl)ammonium chloride 35141-30-1 68092-72-8
 94194-98-6 108587-75-3 112618-82-3

RL: USES (Uses)
 (coupling agents, for plastic moldings, crosslinking
 of)

IT 3371-62-8 17861-40-4 18032-34-3 18406-41-2 87135-01-1
 93236-49-8 168427-71-0 112614-32-1

RL: MOA (Modifier or additive use); USES (Uses)
 (crosslinking agents, for silane derivative couplers for
 plastics)

IT 112659-95-7
 RL: USES (Uses)
 (quartz-filled, silane derivative couplers for,
 crosslinking of)

IT 112659-46-8
 RL: USES (Uses)
 (reinforced, silane derivative couplers for, crosslinking
 of)

IT 106107-54-4
 RL: USES (Uses)
 (rubber, block, coatings, Kraton 1102, silane derivative
 couplers for, crosslinking of)

OS.CITING REF COUNT: 21 THERE ARE 21 CAPLUS RECORDS THAT CITE
 THIS RECORD (22 CITINGS)

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE
 FOR THIS RECORD. ALL CITATIONS AVAILABLE
 IN THE RE FORMAT

L47 ANSWER 19 OF 23 HCAPLUS COPYRIGHT 2010 ACS ON STN

ACCESSION NUMBER: 1986:170261 HCAPLUS Full-text

DOCUMENT NUMBER: 104:170261

ORIGINAL REFERENCE NO.: 104:26961a,26964a

TITLE: Hard coatings for plastics

INVENTOR(S): Kawashima, Hiroshi; Mogami, Takao; Kubota,
 Satoshi

PATENT ASSIGNEE(S): Suwa Seikosha Co., Ltd., Japan

SOURCE: Ger. Offen., 68 pp.

CODEN: GWXXBX

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	-----
DE 3520749	A1	19851212	DE 1985-3520749	1985 0610
			<--	
JP 60262834	A	19851226	JP 1984-119682	1984 0611
			<--	
JP 61179235	A	19860811	JP 1985-20269	1985 0205
			<--	
FR 2565699	A1	19851213	FR 1985-6485	1985 0429
			<--	
PRIORITY APPLN. INFO.:			JP 1984-119682	A 1984 0611
			<--	
			JP 1985-20269	A

1985

0205

<--

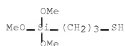
ED Entered STN: 17 May 1986

AB Hard plastics, especially lenses, from copolymers of halogenated bisphenol carboxyalkyl ether allyl esters and diallylbenzenedicarboxylates are coated with silicones or photocurable resins, after treatment with aqueous alkaline solns. of polyethylene glycol (I). Thus, a lens (n 1.583) prepared from a copolymer of 50 parts tetrabromobisphenol A bis[2-(carboallyloxy)ethyl]ether and 50 parts diallyl phthalate was dipped in a solution of I (mol. weight 40) 100, NaOH 50, and H₂O 850 g at 40° for 5 min, dipped in a mixture of 30% alc. colloidal SiO₂ 230, [3-(glycidyloxy)propyl]trimethoxysilane 108, 0.05N HCl 52, and iso-PROH 220 parts, and baked 1 h at 80° and 1 h at 4130° to give a lens with good resistance to abrasion, H₂O, chems., and weathering.

IT 4420-74-0 98789-40-3
 RL: USES (Uses)
 (coatings containing, abrasion-resistant, for plastic lenses)

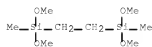
RN 4420-74-0 HCAPLUS

CN 1-Propanethiol, 3-(trimethoxysilyl)- (CA INDEX NAME)



RN 98789-40-3 HCAPLUS

CN 2,7-Dioxa-3,6-disilaoctane, 3,6-dimethoxy-3,6-dimethyl- (CA INDEX NAME)



IC ICM C08L031-00
 ICS C08L031-06; C08J007-12; C08J007-04; C08J007-18; C09D003-82; B29D011-00

CC 42-10 (Coatings, Inks, and Related Products)
 Section cross-reference(s): 38

ST lens plastic coating hard; silicone coating
 lens plastic; tetrabromobisphenol A deriv copolymer lens; allyl ester copolymer lens; phthalate allyl copolymer lens; abrasion resistance coating plastic

IT Lenses
 (plastic, abrasion-resistant silicone and acrylic polymer coatings for)

IT Abrasion-resistant materials
 (coatings, silicones and acrylic polymers, for plastic lenses)

IT Coating materials
 (photocurable, acrylic polymers, for plastic lenses)

IT 2530-83-8 2897-60-1 3388-04-3 4420-74-0
 7631-86-9, uses and miscellaneous 39317-73-2
 98789-40-3
 RL: USES (Uses)
 (coatings containing, abrasion-resistant, for plastic lenses)

IT 115-77-5D, acrylate esters, copolymers 6606-59-3D, copolymers
 29570-58-9D, copolymers 101764-94-7

10/554,222-322849-EIC SEARCH

RL: TEM (Technical or engineered material use); USES (Uses)
(coatings, photocurable and abrasion-resistant, for
plastic lenses)

IT 81517-52-4 98716-83-7 101764-90-3 101797-98-2 101797-99-3
RL: USES (Uses)
(lenses, abrasion-resistant coatings for)
IT 25322-68-3
RL: USES (Uses)
(plastic lens treatment with, in abrasion-resistant
coating)

L47 ANSWER 20 OF 23 HCAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 1986:90145 HCAPLUS Full-text
DOCUMENT NUMBER: 104:90145
ORIGINAL REFERENCE NO.: 104:14307a,14310a
TITLE: Plastic lenses
INVENTOR(S): Kubota, Satoshi; Nakajima, Mikito; Mogami,
Takao
PATENT ASSIGNEE(S): Suwa Seikosha Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 60213902	A	19851026	JP 1984-71171	1984 0410

PRIORITY APPLN. INFO.: <--
JP 1984-71171
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1984
0410

ED Entered STN: 22 Mar 1986

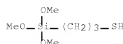
AB An antireflective, scratch resistant, and dyeable coating for a plastic lens comprises (A) a compound R1R2Si(OR3)3-a (R1 = Cl-6 hydrocarbon, vinyl, methacryloyloxy, amino, mercapto, epoxy; R2 = Cl-4 hydrocarbon; R3 = Cl-5 hydrocarbon, acyl, alkoxyalkyl, H; a = 0 - 1), (B) a compound (R4O)3-bSiRb6ZSiRc7(OR5)3-c (R4,R5 = Cl-4 hydrocarbon, acyl, alkoxyalkyl, H; R6,R7 = Cl-6 hydrocarbon, vinyl, methacryloyloxy, amino, mercapto, epoxy; Z = hydrocarbon, O, S; b,c = 0 - 1) (I), (C) a colloidal silica with particle diameter 1-100 µ, (D) a polyfunctional epoxy compound or polyvalent alc., and (E) Mg(ClO4)2. Thus, an hydrolyzed composition comprising MeSi(OMe)3 63, I (R4 = R5 = R6 = R7 = Me; Z = (CH2)2; b = c = 1) 10, colloidal silica 100, trimethylolpropane triglycidyl ether 26, and Mg(ClO4)2 13.0, and a silicone surfactant was coated on a polycarbonate lens and cured at 80° for 30 min and at 130° for 2 h to give a layer exhibiting crosscut adhesion test 100/100 initially and 100/100 after 500 h of UV irradiation, and visible light transmittance 48% after dyeing, withstanding 10 rubbing cycles with a steel wool at 10 kg/cm2 and 24 h of immersion in 0.1% aqueous NaOH or EtOH, compared with 100/100, 30/100, and 89%, resp., for a coating not containing Mg(ClO4)2.

IT 4420-74-0 98789-40-3

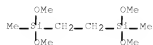
RL: USES (Uses)
(coatings containing, plastic lenses coated
with, antireflective, scratch-resistant, dyeable)

RN 4420-74-0 HCAPLUS

CN 1-Propanethiol, 3-(trimethoxysilyl)- (CA INDEX NAME)



RN 98789-40-3 HCAPLUS
 CN 2,7-Dioxa-3,6-disilaoctane, 3,6-dimethoxy-3,6-dimethyl- (CA INDEX NAME)



IC ICM G02B001-10
 ICS C08J007-04; C09D003-82; G02B001-04
 CC 38-3 (Plastics Fabrication and Uses)
 Section cross-reference(s): 42
 ST methyltrimethoxysilane coating polycarbonate lens;
 silica silicone coating polycarbonate lens;
 trimethylolpropane triglycidyl ether silicone coating;
 magnesium perchlorate silicone coating
 IT Polycarbonates
 RL: USES (Uses)
 (lenses, silicone coatings for, antireflective,
 scratch-resistant, dyeable)
 IT Lenses
 (plastic, silicone coatings for, antireflective,
 scratch-resistant, dyeable)
 IT Coating materials
 (silicone, for plastic lenses, antireflective,
 scratch-resistant, dyeable)
 IT 1185-55-3 2530-83-8 4420-74-0 18406-41-2
 98789-40-3 100699-39-6
 RL: USES (Uses)
 (coatings containing, plastic lenses coated
 with, antireflective, scratch-resistant, dyeable)
 IT 7631-86-9, uses and miscellaneous
 RL: USES (Uses)
 (colloidal, silicone coatings containing, plastic lenses
 coated with, antireflective, scratch-resistant,
 dyeable)
 IT 10034-81-8
 RL: CAT (Catalyst use); USES (Uses)
 (curing catalysts, silicone coatings
 containing, plastic lenses coated with, antireflective,
 scratch-resistant, dyeable)
 IT 25656-90-0
 RL: USES (Uses)
 (lenses, silicone coatings for, antireflective,
 scratch-resistant, dyeable)
 IT 111-46-6, uses and miscellaneous 3454-29-3 16096-31-4
 RL: USES (Uses)
 (silicone coatings containing, plastic lenses
 coated with, antireflective, scratch-resistant,
 dyeable)
 OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE
 THIS RECORD (1 CITINGS)
 L47 ANSWER 21 OF 23 HCAPLUS COPYRIGHT 2010 ACS on STN
 ACCESSION NUMBER: 1985:579354 HCAPLUS Full-text
 DOCUMENT NUMBER: 103:179354
 ORIGINAL REFERENCE NO.: 103:28879a
 TITLE: Synthetic resin lenses with high refractive
 index

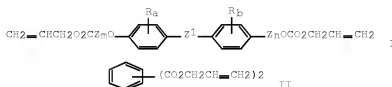
10/554,222-322849-EIC SEARCH

PATENT ASSIGNEE(S): Suwa Seikosha Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 60103303	A	19850607	JP 1983-212193	1983 1111

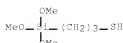
PRIORITY APPLN. INFO.: <--
 JP 1983-212193
 1983
 1111

ED Entered STN: 30 Nov 1985
 GI

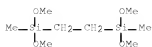


AB Lenses with high refractive index, prepared from a copolymer of I [$Z = \text{OCH}_2\text{CH}_2$, $\text{O}(\text{CH}_2)_3$, OCHMeCH_2 , $\text{OCH}_2\text{CH}(\text{OH})\text{CH}_2$; $Z_1 = \text{O}$, S , SO_2 , CH_2 , CMe_2 ; $\text{R} = \text{Cl}$, Br , I ; $a, b = 1-4$; $m, n = 0-4$] and II, are coated with a composition of $\text{RSiR}_3\text{c}(\text{OR}_2)_3$ -c and/or $(\text{R}_3\text{O})_3$ -dSiR₅dZSiR₆e(OR₄)₃-e (R , R_5 , $\text{R}_6 = \text{Cl}$ -6 hydrocarbyl, optionally with vinyl, methacryloxy, amino, mercapto, or epoxy functionality; $\text{R}_1, \text{R}_3, \text{R}_4 = \text{Cl}$ -4 hydrocarbyl; $\text{R}_2 = \text{Cl}$ -5 hydrocarbyl, acyl, alkoxyalkyl, H ; $c, d, e = 0, 1$; $Z =$ divalent hydrocarbyl, O - or S -containing divalent organic group), colloidal silica of particle size 1-100 μm , and a polyhydric alc., a polybasic carboxylic acid, a polybasic carboxylic acid anhydride, and/or a polyfunctional epoxy compound. Thus, a mixture of 2,2-bis[4-(2-allyloxycarbonyloxyethoxy)-3,5-dibromophenyl]propane 50, diallyl phthalate 50, 2-(2-hydroxy-5-methylphenyl)benzotriazole 0.1, and di-iso-Pr peroxycarbonate 1.2 parts was heated in a mold at 40-90° for 24 h and postcured at 100° for 3 h to give a lens with $n_D 1.583$, which was treated with 4% NaOH aqueous solution, immersed in a composition of $\text{MeSi}(\text{OMe})_3$ [1185-55-3] 108, OSCAL-1432 [7631-86-9] (iso-PrOH-dispersed colloidal silica) 212, iso-PrOH 439, 0.05N HCl 52, 1,6-hexanediol diglycidyl ether [16096-31-4] 183, $\text{Mg}(\text{ClO}_4)_2$ 5, and L-7604 (flow control agent) 0.1 part, and cured 1 h at 80° and 1 h at 130°. The lens coating had good adhesion and good resistance to abrasion, hot water, weather, and chemicals.

IT 4420-74-0 98789-40-3
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (hydrolytic polymerization of, in manufacture of coatings for plastic lenses with high refractive index)
 RN 4420-74-0 HCAPLUS
 CN 1-Propanethiol, 3-(trimethoxysilyl)- (CA INDEX NAME)



RN 98789-40-3 HCAPLUS
 CN 2,7-Dioxa-3,6-disilaooctane, 3,6-dimethoxy-3,6-dimethyl- (CA INDEX NAME)

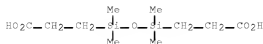


IC ICM G02B001-10
 ICS C08F218-00; C08F218-18; G02B001-04
 CC 38-3 (Plastics Fabrication and Uses)
 ST allyl copolymer lens abrasion resistance; bromobisphenol ether
 copolymer lens; diallyl phthalate copolymer lens;
 methyltrimethoxysilane coating allyl copolymer lens
 IT Lenses
 (allyl copolymers, coated with siloxane and silica,
 with high refractive index, abrasion-resistant)
 IT Coating materials
 (abrasion-resistant, silica-containing siloxane, for allyl
 copolymer lenses with high refractive index)
 IT Abrasion-resistant materials
 (coatings, silica-containing siloxane, for allyl
 copolymer lenses with high refractive index)
 IT 7631-86-9, uses and miscellaneous
 RL: USES (Uses)
 (colloidal, siloxane coatings containing, for plastic
 lenses with high refractive index)
 IT 1185-55-3 2530-83-8 2897-60-1 3388-04-3 4420-74-0
 98789-40-3
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (hydrolytic polymerization of, in manufacture of coatings for
 plastic lenses with high refractive index)
 IT 81517-52-4 98572-56-6 98716-83-7
 RL: USES (Uses)
 (lenses, polysiloxane- and silica-coated, with high
 refractive index)
 IT 56-81-5, uses and miscellaneous 111-46-6, uses and miscellaneous
 16096-31-4 27043-36-3
 RL: USES (Uses)
 (siloxane coatings containing, for plastic lenses with
 high refractive index)
 L47 ANSWER 22 OF 23 HCAPLUS COPYRIGHT 2010 ACS ON STN
 ACCESSION NUMBER: 1956:73525 HCAPLUS Full-text
 DOCUMENT NUMBER: 50:73525
 ORIGINAL REFERENCE NO.: 50:13728d-i,13729a-g
 TITLE:
 Organosilicon chemistry. L. Aliphatic
 organo-functional siloxanes. IV. Direct
 synthesis of organosiloxane esters and acids
 from halomethylsiloxanes and
 halomethylthoxysilanes
 AUTHOR(S): Sommer, L. H.; Masterson, J. M.; Steward, O.
 W.; Leitheiser, R. H.
 CORPORATE SOURCE: Pennsylvania State Univ., Univ. Park
 SOURCE: Journal of the American Chemical Society (1956), 78, 2010-15
 CODEN: JACSAT; ISSN: 0002-7863
 DOCUMENT TYPE: Journal
 LANGUAGE: Unavailable
 ED Entered STN: 22 Apr 2001

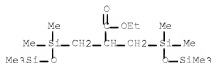
GI For diagram(s), see printed CA Issue.
 AB cf. C.A. 50, 9281h. Me3SiOSiMe2CH2I (I) (115 g.) added rapidly with stirring to 9.2 g. Na and 64 g. CH2(CO2Et)2 (II) in 210 cc. Diethyl Carbitol (III), the mixture heated 15 hrs. with stirring at 100°, washed with two 100-cc. portions H2O, the washings extracted with C6H6, and the combined product and washings distilled gave 96.5 g. Me3SiOSiMe2.CH2O(CO2Et)2 (IV), b₇ 127-8°, nd₂₀ 1.4240, d₂₀ 0.9717, MRD 84.2; saponification equivalent 160 [determined by heating 9 hrs. with KOH-(HOCH2CH2)2O on the steam bath]. A similar run with the Cl analog (V) of I gave 58-75%. I (142 g.) added during 0.5 hr. with stirring and heating at 50° to NaCH(CO2Et)2 (VI) from 96 g. II and 12 g. Na sand in 750 cc. PhMe, the mixture heated 45 hrs. with stirring at 105°, cooled, and filtered, and the filtrate fractionated gave 50% IV. O(SiMe2CH2I)2 (VII), b₆ 120°, nd₂₀ 1.5255 [prepared from the di-Cl analog (VIII) of VII and NaI in Me2CO], (207 g.) added during 0.5 hr. with stirring at 50° to VI from 192 g. II and 23 g. Na sand in 1.4 l. PhMe, and the mixture refluxed 50 hrs. with stirring gave 97 g. 1,1-dicarbethoxy-3,3,5,5-tetramethyl-3,5-disila-4-oxacyclohexane (IX), b₆₋₇ 134°, nd₂₀ 1.4485, d₂₀ 1.043, MRD 81.8, saponification equivalent 157 (heated 20 hrs.). VIII gave similarly only 28% IX. VIII (67 g.) added during 5 min. at 40° to VI from 96 g. II and 13.8 g. Na in 250 cc. III, and the mixture heated 1 hr. with stirring at 110-15° yielded 58.2 g. IX, b₁₀ 141-2°, nd₂₀ 1.4430-1.4480; careful fractionation gave material, nd₂₀ 1.4440-1.4455, which was hydrolyzed and decarboxylated to yield 30 g. 1-carboxy-3,3,5,5-tetra-methyl-3,5-disila-4-oxacyclohexane (X), m. 144°. VII treated with VI in III and the product hydrolyzed and decarboxylated yielded about 50% X. Iodomethylheptamethylcyclotetrasiloxane (XI) (149 g.), b₀₋₇ 66°, nd₂₀ 1.4449, d₂₀ 1.2897, MRD 87.2 [prepared in 83% yield from the Cl analog (XII) of XI and NaI in Me2CO], in 50 cc. III heated to 100°, and treated with stirring during 2 hrs. with VI from 8.0 g. Na and 56 g. II in 250 cc. III, the mixture cooled to room temperature, diluted with 300 cc. Et2O, washed with 500 cc. 0.5N HCl and 500 cc. H2O, the aqueous layer extracted with Et2O, and the combined Et2O solns. worked up gave 72 g. (2,2-dicarbethoxyethyl)-heptamethylcyclotetrasiloxane, b₂ 136°, nd₂₀ 1.4251, d₂₀ 1.0542, MRD 110.3, saponification equivalent 229 (refluxed 4 hrs. with KOH in Me Cellosolve); it was also obtained in 24% yield, b₀₋₃ 114°, nd₂₀ 1.4254, during 20 hrs. at 100° from XII. V (0.5 mole) added at 50° to 11.5 g. Na dissolved at 75° in 200 cc. Me3COH in the presence of 83 g. II, the mixture stirred 1 hr. at 85° and 15 hrs. at 75°, cooled, and washed with two 100-cc. portions H2O, the aqueous layer extracted with C6H6, and the combined organic solns. distilled gave 76.0 g. IV, b₇ 127° nd₂₀ 1.4240. V(196 g.) and 10 g. NaI added to VI from 1 mole Na and 1.2 moles II in 500 cc. refluxing absolute EtOH, the mixture stirred 6 hrs. and centrifuged, and the liquid distilled gave 28 g. Me3SiOEt as slightly impure azeotrope with 30% EtOH, b₇₂₄ 65°, nd₂₀ 1.3720; 15.2 g. EtOSiMe2CH2Cl, b₄₇ 58°, nd₂₀ 1.4151; and 26.2 g. EtOSiMe2CH2CH(CO2Et)2 (XIII), b₄₅ 125°, nd₂₀ 1.4299. The unfractionated XIII from a similar run hydrolyzed and decarboxylated yielded only 3 g. O(SiMe2CH2CH2CO2H)2 (XIV). IX (120 g.), 500 cc. glacial AcOH, and 150 cc. concentrated HCl refluxed 12 hrs., the EtOAc removed, and the residual mixture cooled gave 62 g. X, hard, shiny white crystals, m. 145° (from ligroine, b. 67-92°); the mother liquor gave a 2nd crop of 15 g. IV (192 g.), 500 cc. glacial AcOH, and 150 cc. concentrated HCl refluxed 24 hrs. and slowly fractionated yielded 75 g. Me2Si.CH2.CH2.CO.O (XV). XV stirred vigorously with 10 cc. H2O gave 78 g. XIV, m. 54°. NCCH2CO2Et (XVI) (35 g.) and 7.1 g. Na in 300 cc. III heated to 100°, cooled to room temperature, treated during 5 min. with 86 g. I, heated 20 hrs. with stirring at 100°, filtered, and fractionated yielded 40.4 g. Me3SiOSiMe2CH2CH(CN)CO2Et (XVII), b₁₇ 140°, nd₂₀ 1.4260, d₂₀ 0.9605, MRD 73.1. XVII was converted in the same manner as IV in 85% yield to XIV, m. 54°. X (60 g.), 500 cc. absolute EtOH, and 5 cc. concentrated HCl refluxed 18 hrs. and fractionated slowly gave 65 g. 1-carbethoxy-3,3,5,5-tetramethyl-3,5-disila-4-oxacyclohexane (XVIII), b₁₁ 102°, nd₂₀ 1.4392, d₂₀ 0.9718, MRD 66.7, saponification equivalent 246. XVIII (192 g.) added during 45 min. with stirring to 378 g. (Me3Si)2O and 20 cc. concentrated H2SO4, the mixture stirred 24 hrs. at room temperature, and the product layer washed with H2O, dried, and distilled gave 99.9 g. unchanged XLVII, b₁₆ 109°, nd₂₀ 1.4375; and 54.7 g. 2,2,4,4,8,8,10,10-octamethyl-2,4,8,10-tetrasil-3,9-diox-6- carbethoxyundecane, b₂ 115° nd₂₀ 1.4253, d₂₀ 0.9078. IV (96.0 g.), 104 g. VIII, and 6 cc. concentrated H2SO4 stirred 20 hrs. at room temperature and the mixture washed with three 30-cc. portions aqueous NaCl, diluted with 50 cc. C6H6, and fractionated gave 0.16 mole V, 0.252 mole VIII, 0.076 mole IV, and 54.7 g. ClCH2SiMe2OSiMe2CH2CH(CO2Et)2 (XIX), b₁₆ 172°, nd₂₀ 1.4405, d₂₀ 1.052, MRD 89.1, saponification equivalent 176. XIX (60 g.) added during 10 min. with stirring at room temperature to VI from 4.0 g. Na and 28 g. II in 100 cc. III, the mixture heated 20 hrs. with stirring at 100° cooled, washed with H2O, and the C6H6 extract of the aqueous washings fractionated yielded 35.6 g. IX, b₁₇ 152°, nd₂₂ 1.4485. V (76.3 g.) added during 15 min. to VI from 11.5 g. Na and 85 g. II in 250 cc.

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- absolute EtOH, and the mixture refluxed 18 hrs., filtered, and fractionated gave 83.1 g. EtOSiMe₂CH₂CH(CO₂Et)₂ (XX), b₁₅ 142°, n_D20 1.4295, d₂₀ 1.001, MRD 71.1, saponification equivalent 136. ClCH₂SiMe₂OEt (61 g.) heated 18 hrs. with stirring at 120° with VI from 9.7 g. Na and 72 g. II in 200 cc. III, filtered, and fractionated gave 61% XX. XX (41.1 g.) treated with glacial AcOH and concentrated HCl gave 95% XIV, m. 54°. NaI (10 g.) and then 182.6 g. ClCH₂SiMe(OEt)₂ (XXI) added to VI from 23 g. Na and 190 g. II in 500 cc. refluxing absolute EtOH yielded in the usual manner 199.5 g. (EtO)₂SiMeCH₂CH(CO₂Et)₂ (XXII), b₂₆ 172°, n_D20 1.4258, d₂₀ 1.0264, MRD 76.4, saponification equivalent 157. XXI and VI in III gave 61% XXII. ClCH₂SiMeCl₂ treated with EtOH gave 71% XXI, b₃₈ 77°. NaCH(CN)CO₂Et from 23 g. Na and 124.3 g. XVI in 500 cc. refluxing absolute EtOH treated with 10 g. NaI and then 182 g. XXI during 0.5 hr., and the mixture refluxed 0.5 hr. with stirring, filtered, and distilled gave 120 g. (EtO)₂SiMeCH₂CH(CN)CO₂Et, b₈ 140°, n_D20 1.4291, d₂₀ 1.017, MRD 65.74, saponification equivalent 253 (at room temperature with N KOH in Bu Cellosolve during 1 hr.).
- IT 4608-02-0, 5-Oxa-4,6-disilanonanedioic acid,
4,4,6,6-tetramethyl- 18536-56-6, Propionic acid,
3-pentamethyldisiloxanyl-2-(pentamethyldisiloxanylmethyl)-, ethyl
ester
(preparation of)
- RN 4608-02-0 HCAPLUS
- CN Propanoic acid, 3,3'-(1,1,3,3-tetramethyl-1,3-disiloxanedyl)bis-
(9CI) (CA INDEX NAME)



- RN 18536-56-6 HCAPLUS
- CN Propanoic acid, 3-(1,1,3,3,3-pentamethyl-1-disiloxanyl)-2-
[(1,1,3,3,3-pentamethyl-1-disiloxanyl)methyl]-, ethyl ester (CA
INDEX NAME)



- CC 10 (Organic Chemistry)
- IT 1558-33-4, Silane, dichloro(chloromethyl)methyl- 1825-62-3,
Silane, ethoxytrimethyl- 2212-10-4, Silane,
(chloromethyl)diethoxymethyl- 2362-10-9, Disiloxane,
1,3-bis(chloromethyl)-1,1,3,3-tetramethyl- 2943-69-3,
Disiloxane, 1,3-bis(iodomethyl)-1,1,3,3-tetramethyl- 4569-17-9,
Propionic acid, 3-(hydroxydimethylsilyl)-, γ-lactone
4569-17-9, 1-Oxa-2-silacyclopentan-5-one, 2,2-dimethyl-
4608-02-0, 5-Oxa-4,6-disilanonanedioic acid,
4,4,6,6-tetramethyl- 10000-34-7,
1-Oxa-2,6-disilacyclohexane-4,4-dicarboxylic acid,
2,2,6,6-tetramethyl-, diethyl ester 10000-36-9,
1-Oxa-2,6-disilacyclohexane-4-carboxylic acid,
2,2,6,6-tetramethyl-, ethyl ester 13508-53-7, Silane,
(chloromethyl)ethoxydimethyl- 17201-83-1, Disiloxane,
(chloromethyl)pentamethyl- 17882-66-5, Cyclotetrasiloxane,
(chloromethyl)heptamethyl- 17882-88-1, Cyclotetrasiloxane,
(iodomethyl)heptamethyl- 17908-13-3, Cyclotetrasiloxane,
(2,2-dicarboxyethyl)heptamethyl-, diethyl ester 17908-13-3,

10/554,222-322849-EIC SEARCH

Malonic acid, (heptamethylcyclotetrasiloxanylmethyl)-, diethyl ester 17963-30-3, Propionic acid, 2-cyano-3-(diethoxymethylsilyl)-, ethyl ester 18052-00-1, 3-Oxa-2,4-disilaheptan-7-oic acid, 6-cyano-2,2,4,4-tetramethyl-, ethyl ester 18052-00-1, Disiloxane, (2-carboxy-2-cyanoethyl)pentamethyl-, ethyl ester 18052-00-1, Propionic acid, 2-cyano-3-pentamethylidisiloxanyl-, ethyl ester 18141-79-2, Malonic acid, [(ethoxydimethylsilyl)methyl]-, diethyl ester 18143-98-1, Disiloxane, (iodomethyl)pentamethyl- 18388-28-8, 1-Oxa-2,6-disilacyclohexane-4-carboxylic acid, 2,2,6,6-tetramethyl- 18406-87-6, Malonic acid, [(diethoxymethylsilyl)methyl]-, diethyl ester 18406-94-5, Disiloxane, 1-(chloromethyl)-3-(2,2-dicarboxyethyl)-1,1,3,3-tetramethyl-, diethyl ester 18406-94-5, Malonic acid, [[3-(chloromethyl)-1,1,3,3-tetramethylidisiloxanyl]methyl]-, diethyl ester 18406-94-5, 3-Oxa-2,4-disilaheptane-6,6-dicarboxylic acid, 1-chloro-2,2,4,4-tetramethyl-, diethyl ester 18418-98-9, Disiloxane, (2,2-dicarboxyethyl)pentamethyl-, diethyl ester 18418-98-9, Malonic acid, (pentamethylidisiloxanylmethyl)-, diethyl ester 18418-98-9, 3-Oxa-2,4-disilaheptane-6,6-dicarboxylic acid, 2,2,4,4-tetramethyl-, diethyl ester 18536-56-6, Propionic acid, 3-pentamethylidisiloxanyl-2-(pentamethylidisiloxanylmethyl)-, ethyl ester 18536-56-6, 3-Oxa-2,4-disilaheptan-7-oic acid, 2,2,4,4-tetramethyl-6-(pentamethylidisiloxanylmethyl)-, ethyl ester 18536-56-6, Disiloxane, (2-carboxytrimethylene)bis[pentamethyl-, ethyl ester 18536-56-6, 3,9-Dioxo-2,4,8,10-tetrasilaunderane-6-carboxylic acid, 2,2,4,4,8,8,10,10-octamethyl-, ethyl ester (preparation of)

L47 ANSWER 23 OF 23 HCAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 1951:42275 HCAPLUS [Full-text](#)

DOCUMENT NUMBER: 48:42275

ORIGINAL REFERENCE NO.: 48:7541a-i,7542a

TITLE: Organosilicon chemistry. XXXIII. Aliphatic organofunctional siloxanes

AUTHOR(S): Sommer, L. H.; Ploch, R. P.; Marans, N. S.; Goldberg, G. M.; Rockett, J.; Kerlin, J.

CORPORATE SOURCE: State College, PA

SOURCE: Journal of the American Chemical Society (1953), 75, 2932-4

CODEN: JACSAT; ISSN: 0002-7863

DOCUMENT TYPE: Journal

LANGUAGE: Unavailable

ED Entered STN: 22 Apr 2001

GI For diagram(s), see printed CA Issue.

AB cf. ibid. 1585; C.A. 47, 484e. The synthesis of 7 aliphatic organosiloxanes containing functional groups linked to C is described. The key reaction for their preparation involves the selective cleavage of 1 Me group from Me3Si derivs. by concentrated H2SO4. Me3Si(CH2)3MgBr carbonated with Dry Ice yielded 74% Me3Si(CH2)3CO2H (I), b10 118°, n20D 1.4324. Claisen condensation of the Me3Si(CH2)2CO2Et in Et2O with (iso-Pr)2NMgBr as the condensing agent yielded 81% Me3SiCH2CH(COCH2CH2SiMe3)CO2Et (II), b8 141°, n20D 1.4472, d20 0.9196. cc I (33 g.) refluxed 4 h. with 14 cc. concentrated H2SO4, 9 cc. H2O, and 73 cc. glacial AcOH gave 80% [Me3Si(CH2)2]2CO (III), b7 103°, n20D 1.4414, d20 0.8424, MRD 72.20. III (0.583 mol), 0.641 mol NH2OH.HCl, 250 cc. absolute EtOH, and 225 cc. dry pyridine heated 2 h. on the steam bath, the solvents evaporated, and the crystalline residue washed with H2O and dried in vacuo yielded 122.5 (86%) oxime (IV) of III, m. 76-6.5° (from MeOH). IV reduced with LiAlH4 in dry Et2O yielded 44% [Me3Si(CH2)2]2CHNH2 (V), b15 115°, n20D 1.4438, d20 0.8123. To 400 cc. concentrated H2SO4 was added at 10° with stirring during 1.5 h. 294 g. Me3Si(CH2)2CO2H, the mixture warmed 1 h. on the steam bath to complete the evolution of CH4 (99%), cooled, poured on ice, and the white solid precipitate filtered off and dried under an IR lamp to give 265 g. (95%) O(SiMe2CH2CH2CO2H)2, m. 53-4°. Similarly was prepared O(SiMe2CH2CH2CO2H)2, b6 142°, n20D 1.4390, in 62% yield from Me3Si(CH2)2Ac. To 5.23 g. I was added slowly with cooling and stirring 20 cc. H2SO4, the mixture warmed after 8 h. to room

temperature, poured on ice, stirred and warmed to room temperature, the white solid precipitate filtered off, washed, and dried; the aqueous filtrate extracted with Et2O gave an addnl. 0.5 g. product; recrystn. of the combined product from heptane gave 4.10 g. (82%) O[SiMe2(CH2)3CO2H]2, m. 49-9.5°. In a similar run of 5 h. at 60° 21% PrCO2H was isolated and identified by the p-phenylphenacyl derivative, m. 82°.

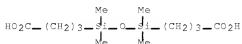
Me3Si(CH2)2NH2.HCl (15.4 g.) and 100 cc. concentrated H2SO4 heated 1 h. on the steam bath, and the mixture poured on ice, made strongly basic with NaOH, steam-distilled, acidified with concentrated HCl, and evaporated gave 85% O[SiMe2CH2CH2NH2]2 (VI). 2HCl m. 267-8° (from EtOHMe2CO); a 24.2-g. sample treated in 50 cc. absolute MeOH with 11.3 g. KOH in 100 cc. dry MeOH, the mixture filtered, the MeOH distilled off, the residue extracted with Et2O, and the extract distilled gave 76% VI, b13 115°, n20D 1.4473, d20 0.9075, MRD 64.89. To 475 g. concentrated H2SO4 was added during 2.5 h. at 18° 138 g. III, the mixture stirred 1 h. at room temperature and 0.5 h. at 85° until the CH4 evolution ceased, cooled, poured on 1.5 kg. ice, the viscous organic layer extracted with three 400-cc. portions of Et2O, the extract washed with H2O, 10% aqueous NaHCO3, and again H2O, dried, rapidly distilled, and the residual viscous material (134 g.) distilled at 3-5 mm. at 230-50° vapor temperature and 370-85° pot temperature to give 112.5 g. distillate consisting of a mixture of liquid and solid; the solid, filtered off and recrystd. from 95% EtOH, gave 30.1 g. (23%)

O.SiMe2.(CH2)2.CO.(CH2)2.SiMe2.O.SiMe2.(CH2)2.CO.(CH2)2.SiMe2 (VII), m. 129-30°. (Me3Si)2O (VIII) (487 g.), 35 cc. concentrated H2SO4, and 58.5 g. of the liquid polymeric byproduct of VII stirred 4 h. at room temperature, the mixture diluted with 100 cc. H2O, stirred 10 min., the organic layer washed with two 100-cc. portions of H2O, dried with K2CO3, the excess VIII distilled off, and the residue fractionated yielded 41% CO(CH2CH2SiMe2OSiMe3)2, b2 95°, n20D 1.4262, d20 0.8857, MRD 108.7. To 68 cc. concentrated H2SO4 was added during 2 h. with cooling and stirring 40 g. V, the mixture stirred 24 h. at room temperature, heated 0.5 h. at 85°, poured on ice, made strongly alkaline with KOH, extracted with four 250-cc. portions of Et2O, the extract dried with Na2SO4 and K2CO3, distilled, the residual sticky polysiloxanepolyamine (39 g.) diluted with 200 cc. iso-PROH, treated with 40 g. KOH in 35 cc. of H2O and 310 g. VII, stirred 22 h. at 78°, cooled, washed with three 150-cc. portions of saturated aqueous NH4Cl, dried with K2CO3, the iso-PROH and excess VII distilled off at atmospheric pressure, and the residue fractionated in vacuo to yield 49% (Me3SiOSiMe2CH2CH2)2C2H5NH2, b2 98°, n20D 1.4282, d20 0.8654, MRD 112.8.

IT 3353-68-2F, Disiloxane,
1,3-bis(3-carboxypropyl)-1,1,3,3-tetramethyl- 4608-02-QP
, 5-Oxa-4,6-disilanonanedioic acid, 4,4,6,6-tetramethyl-
17940-49-7F, 3,11-Dioxa-2,4,10,12-tetrasilatridecane,
7-amino-2,2,4,4,10,10,12,12-octamethyl- 17940-82-8F,
3-Pentanone, 1,5-bis(pentamethyldisiloxanyl)-
RL: PREP (Preparation)
(preparation of)

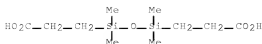
RN 3353-68-2 HCAPLUS

CN Butanoic acid, 4,4'-(1,1,3,3-tetramethyl-1,3-disiloxanediyl)bis-
(CA INDEX NAME)



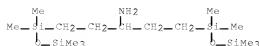
RN 4608-02-0 HCAPLUS

CN Propanoic acid, 3,3'-(1,1,3,3-tetramethyl-1,3-disiloxanediyl)bis-
(9CI) (CA INDEX NAME)

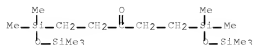


10/554,222-322849-EIC SEARCH

RN 17940-49-7 HCAPLUS
 CN 3-Pentanamine, 1,5-bis(1,1,3,3,3-pentamethyl-1-disiloxanyl)- (CA
 INDEX NAME)



RN 17940-82-8 HCAPLUS
 CN 3-Pentanone, 1,5-bis(1,1,3,3,3-pentamethyl-1-disiloxanyl)- (CA
 INDEX NAME)



CC 10 (Organic Chemistry)
 IT 2345-40-6P, Butyric acid, 4-(trimethylsilyl)- 3353-68-2P
 , Disiloxane, 1,3-bis(3-carboxypropyl)-1,1,3,3-tetramethyl-
 3353-68-2P, 6-Oxa-5,7-disilaundecanedioic acid,
 5,5,7,7-tetramethyl- 3982-89-6P, Phosphinothioic chloride,
 diethyl- 4608-02-0P, 5-Oxa-4,6-disilanonanedioic acid,
 4,4,6,6-tetramethyl- 17865-89-3P,
 4-Oxa-3,5-disilaheptane-1,7-diamine, 3,3,5,5-tetramethyl-
 17940-49-7P, 3,11-Dioxa-2,4,10,12-tetrasilatridecane,
 7-amino-2,2,4,4,10,10,12,12-octamethyl- 17940-49-7P,
 Propylamine, 3-(pentamethyldisiloxanyl)-1-[2-
 (pentamethyldisiloxanyl)ethyl]- 17940-82-8P,
 3-Pentanone, 1,5-bis(pentamethyldisiloxanyl)-
 17940-82-8P, Disiloxane,
 1,1'-(3-oxopentamethylene)bis[1,1,3,3,3-pentamethyl-
 17940-82-8P, 3,11-Dioxa-2,4,10,12-tetrasilatridecan-7-one,
 2,2,4,4,10,10,12,12-octamethyl- 17948-11-7P, Silane,
 (2-carboxy-3-oxopentamethylene)bis[trimethyl-, ethyl ester
 17948-11-7P, Valeric acid,
 3-oxo-5-(trimethylsilyl)-2-[(trimethylsilyl)methyl]-, ethyl ester
 18044-31-0P, 2,8-Disilanonan-5-one, 2,2,8,8-tetramethyl-, oxime
 18053-71-9P, 6-Oxa-5,7-disilaundecane-2,10-dione,
 5,5,7,7-tetramethyl- 18053-95-7P, 2,8-Disilanonan-5-one,
 2,2,8,8-tetramethyl- 18057-83-5P, Silane,
 (3-aminopentamethylene)bis[trimethyl- 18057-83-5P, Propylamine,
 3-(trimethylsilyl)-1-[2-(trimethylsilyl)ethyl]- 18623-13-7P,
 1,9-Dioxa-2,8,10,16-tetrasilacyclohexadecane-5,13-dione,
 2,2,8,8,10,10,16,16-octamethyl-
 RL: PREP (Preparation)
 (preparation of)

OS.CITING REF COUNT: 3 THERE ARE 3 CAPLUS RECORDS THAT CITE
 THIS RECORD (3 CITINGS)

FULL SEARCH HISTORY

=> d his nofile

(FILE 'HOME' ENTERED AT 17:25:33 ON 23 FEB 2010)

FILE 'HCAPLUS' ENTERED AT 17:25:39 ON 23 FEB 2010

E US20060219981/PN

L1 1 SEA SPE=ON ABB=ON PLU=ON US20060219981/PN
D ALL
SEL RN

FILE 'REGISTRY' ENTERED AT 17:26:40 ON 23 FEB 2010

L2 7 SEA SPE=ON ABB=ON PLU=ON (154619-15-5/BI OR
161000-64-2/BI OR 273735-07-2/BI OR 770733-64-7/BI OR
792931-71-6/BI OR 792931-72-7/BI OR 792931-73-8/BI)
D SCA

FILE 'LREGISTRY' ENTERED AT 17:27:40 ON 23 FEB 2010

L3 STR

FILE 'REGISTRY' ENTERED AT 17:46:44 ON 23 FEB 2010

L4 10 SEA SSS SAM L3
D SCA
L5 SCR 2043
D QUE STAT L4
L6 50 SEA SSS SAM L3 AND L5
L7 4613 SEA SSS FUL L3
SAV TEMP L7 ECH222REG/A

FILE 'LREGISTRY' ENTERED AT 17:49:54 ON 23 FEB 2010

L8 STR L3
L9 STR L3

FILE 'REGISTRY' ENTERED AT 17:51:06 ON 23 FEB 2010

L10 50 SEA SUB=L7 SSS SAM L8
L11 2898 SEA SUB=L7 SSS FUL L8
SAV TEMP L11 ECH222REGA/A
L12 50 SEA SUB=L7 SSS SAM L9
L13 1738 SEA SUB=L7 SSS FUL L9
SAV TEMP L13 ECH222REGB/A
L14 23 SEA SPE=ON ABB=ON PLU=ON L11 AND L13
L15 2 SEA SPE=ON ABB=ON PLU=ON L2 AND L14
D SCA
L16 5 SEA SPE=ON ABB=ON PLU=ON L2 NOT L15
D SCA

FILE 'HCAPLUS' ENTERED AT 17:56:09 ON 23 FEB 2010

FILE 'REGISTRY' ENTERED AT 17:56:18 ON 23 FEB 2010
SAV TEMP L14 ECH222REGC/A

FILE 'HCAPLUS' ENTERED AT 17:56:40 ON 23 FEB 2010

L17 16 SEA SPE=ON ABB=ON PLU=ON L14
L18 1 SEA SPE=ON ABB=ON PLU=ON L15
D SCA
D SCA L1
L19 7604 SEA SPE=ON ABB=ON PLU=ON L11
L20 1182 SEA SPE=ON ABB=ON PLU=ON L13
L21 50 SEA SPE=ON ABB=ON PLU=ON L19 AND L20
L22 4844 SEA SPE=ON ABB=ON PLU=ON PROTON? (8A) ?CONDUCT? (8A) ?ME
MERAN?
D KWIC
L23 50 SEA SPE=ON ABB=ON PLU=ON L17 OR L21
L24 50 SEA SPE=ON ABB=ON PLU=ON L23 OR L18
L25 QUE SPE=ON ABB=ON PLU=ON PY=<2003 NOT P/DT

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L26 QUE SPE=ON ABB=ON PLU=ON (PY=<2003 OR PRY=<2003 OR
AY=<2003 OR MY=<2003 OR REVIEW/DT) AND P/DT

L27 32 SEA SPE=ON ABB=ON PLU=ON L24 AND (L25 OR L26)

L28 10 SEA SPE=ON ABB=ON PLU=ON L17 AND L27

L29 32 SEA SPE=ON ABB=ON PLU=ON L27 OR L28

L30 1 SEA SPE=ON ABB=ON PLU=ON L29 AND L22
D KWIC

L31 1 SEA SPE=ON ABB=ON PLU=ON L1 AND L29
D SCA

L32 15922 SEA SPE=ON ABB=ON PLU=ON PROTON?(3A)?CONDUCT?

L33 2 SEA SPE=ON ABB=ON PLU=ON L29 AND L32
D SCA

L34 QUE SPE=ON ABB=ON PLU=ON FILM? OR THINFILM? OR
LAYER? OR OVERLAY? OR OVERLAID? OR LAMIN? OR LAMEL? OR
MULTILAYER? OR SHEET? OR LEAF? OR FOIL? OR COAT? OR
TOPCOAT? OR OVERCOAT? OR VENEER? OR SHEATH? OR COVER?
OR ENVELOP? OR ENCASE? OR ENWRAP? OR OVERSPREAD? OR
ENCAPSUL?

L35 QUE SPE=ON ABB=ON PLU=ON L34 OR ?MEMBRAN?

L36 QUE SPE=ON ABB=ON PLU=ON (PROTON? OR CHARG? OR
HOLE# OR ELECTRON# OR E) (2A) (TRANSPORT? OR MIGRAT? OR
TRANSFER? OR MOVE# OR MOVING# OR MOVEMENT? OR ?CONDUCT?
)

L37 15 SEA SPE=ON ABB=ON PLU=ON L29 AND (L36 OR L22 OR L32
OR L35)

L38 QUE SPE=ON ABB=ON PLU=ON POR? OR POUR?

L39 3 SEA SPE=ON ABB=ON PLU=ON L37 AND L38
D SCA

L40 15 SEA SPE=ON ABB=ON PLU=ON (L30 OR L31) OR L33 OR L37
OR L39

L41 21 SEA SPE=ON ABB=ON PLU=ON L40 OR L28

L42 6 SEA SPE=ON ABB=ON PLU=ON L41 NOT L40
D SCA

L43 QUE SPE=ON ABB=ON PLU=ON POLYMI? OR CURE# OR
CURING# OR CURAB? OR CROSS(W)LINK? OR CROSSLINK?

L44 18 SEA SPE=ON ABB=ON PLU=ON L29 AND L43

L45 23 SEA SPE=ON ABB=ON PLU=ON L40 OR L44

L46 10 SEA SPE=ON ABB=ON PLU=ON L44 AND L40

L47 23 SEA SPE=ON ABB=ON PLU=ON L40 OR L44 OR L46
SAV TEMP L47 ECH222HCP/A
D QUE STAT L47
D L47 1-23 IBIB ED ABS HITSTR HITIND